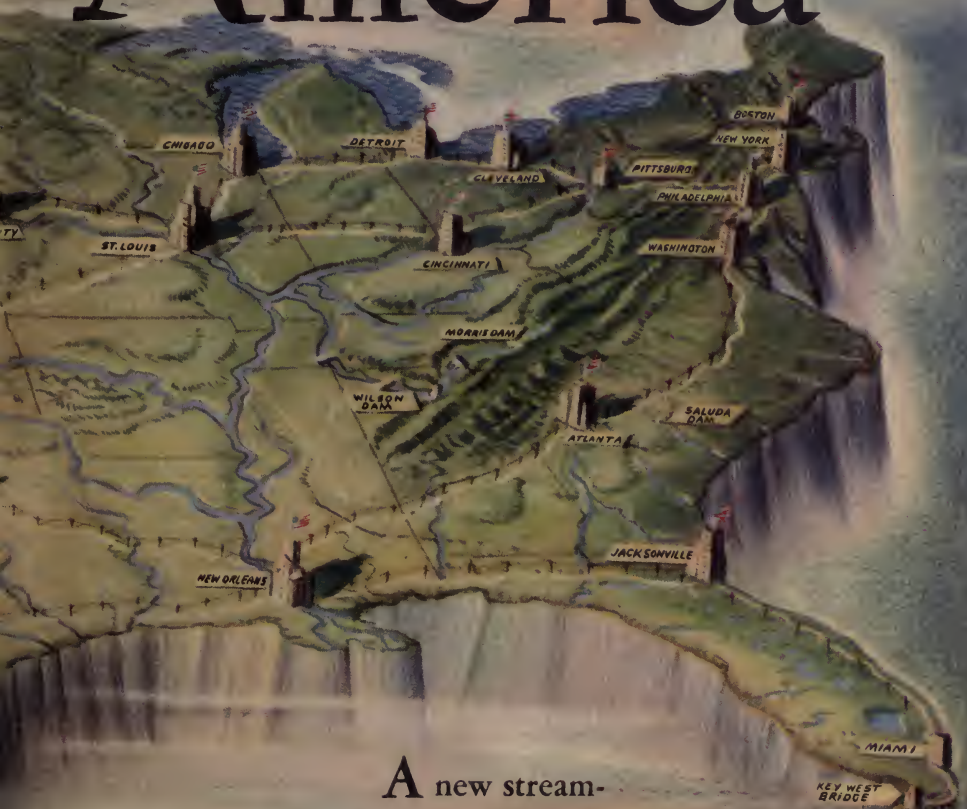


Remaking America



A new stream-
lined America is being built to
meet the world of tomorrow.

By Jay Franklin

REMAKING AMERICA

By
JAY FRANKLIN

UNDER leadership from Washington, America has been mobilizing the colossal resources of the North American continent for almost a decade. We have been remaking America on a vast scale: remaking the land, and in consequence, remaking the people. This book presents dramatically and for the first time the over-all story of what we have done and are doing. It brings into vivid perspective those physical achievements of the past few years, which history may well record as the greatest contribution of our generation.

The story that Franklin tells is being written, day by day, on the map of the United States, in terms of soil and of water, of trees and grass and wild life, of cash and concrete. He shows how, after three centuries of exploitation, we have begun to reclaim our natural heritage: how we are rebuilding our farm lands and replanting our forests; how we are harnessing our rivers with dams larger than the pyramids of Egypt, bringing life

(Continued on back flap)





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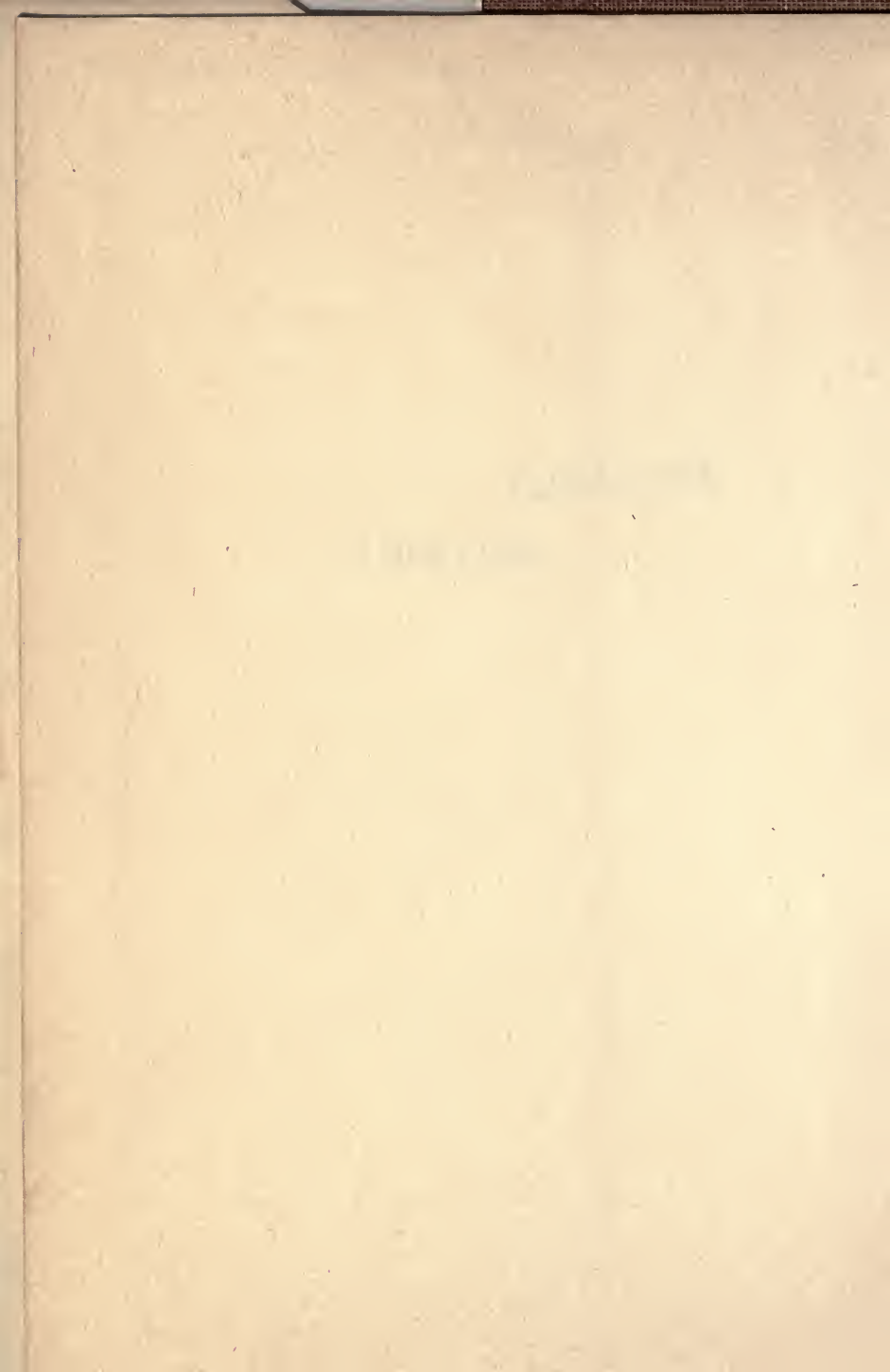
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Remaking

AMERICA



Remaking AMERICA

By JAY FRANKLIN

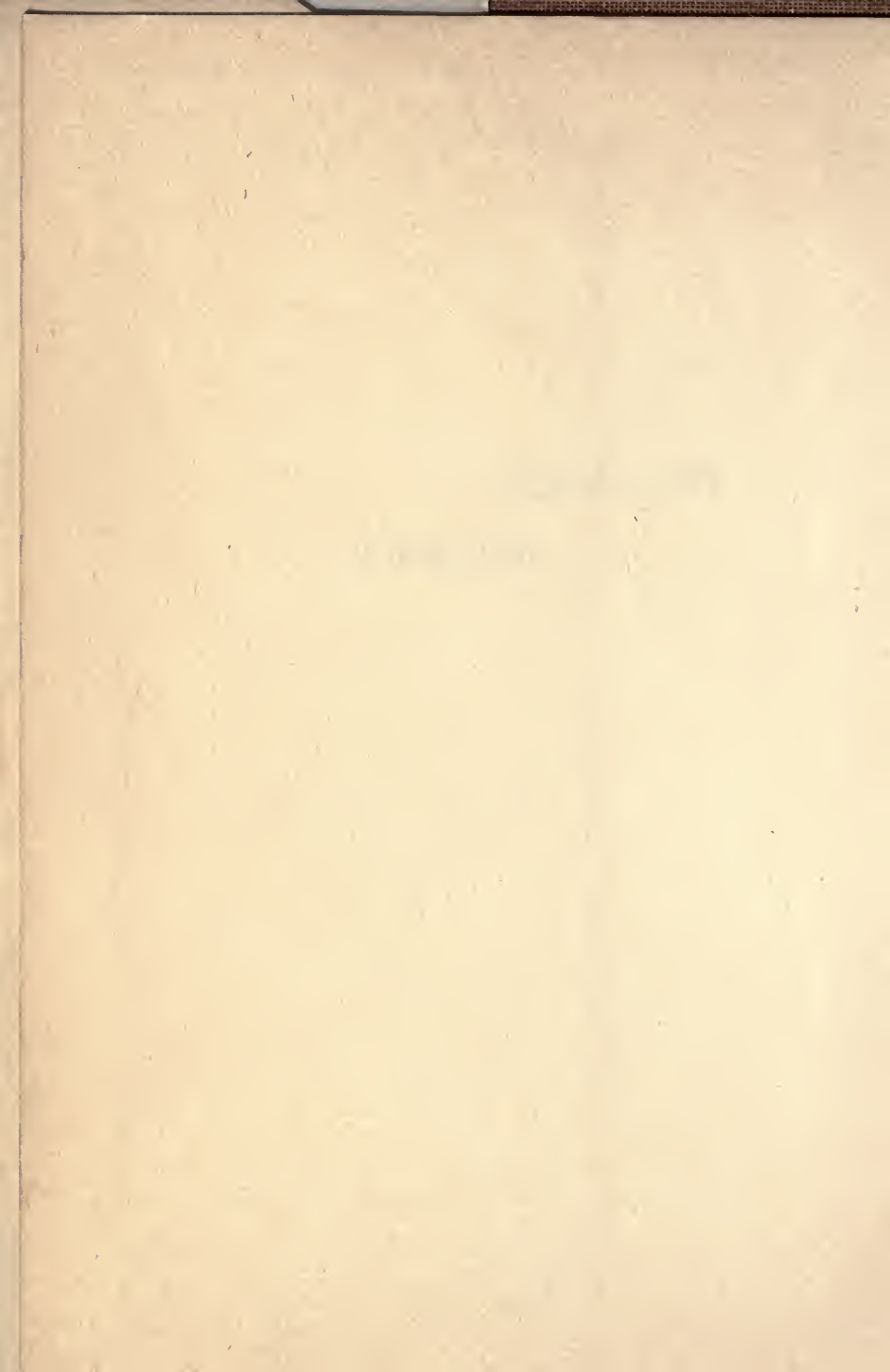
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BOSTON • HOUGHTON MIFFLIN COMPANY

The Riverside Press Cambridge

1942



Remaking AMERICA

By JAY FRANKLIN

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1942

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The Riverside Press
CAMBRIDGE • MASSACHUSETTS
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TO MY DAUGHTER
SONIA FRANKLIN CARTER
WHO WILL HAVE TO LIVE IN THE AMERICA
WHICH WE HAVE TRIED TO REMAKE

ACKNOWLEDGMENTS

I DESIRE to acknowledge my indebtedness to the editorial assistance of James J. Gillan, who did most of the 'leg-work' and supplied invaluable advice and criticism in assembling, organizing, studying, and briefing the enormous mass of material involved in the preparation of this book. He was also of great help in supplying from his own experience data and opinions regarding labor questions and farm problems in the Western States.

I wish to make acknowledgment also to the following for many courtesies:

Henry A. Wallace, Vice-President of the United States, formerly Secretary of Agriculture.

Harold L. Ickes, Secretary of the Interior.

Harriet Root, Chief, United States Information Service.

Paul V. McNutt, Federal Security Agency.

John W. Studebaker, Commissioner of Education.

Nathan Straus, United States Housing Authority.

Paul J. Raur, Bonneville Dam.

I. J. Harris, Boulder Dam.

James J. McEntee, Civilian Conservation Corps.

John R. Gardner, Acting Commissioner, Bureau of Fisheries.

Edward Bruce, Chief of the Section of Fine Arts, Treasury Department.

Frank A. Banks, Department of Reclamation, Grand Coulee, Washington.

Aubrey Williams, National Youth Administration.

John M. Carmody, Federal Works Agency.

Colonel E. W. Clark, Public Works Administration.

John C. Page, Bureau of Reclamation.

E. H. Clapp, Acting Director, Forest Service.

Will H. Alexander, Farm Security.

Thomas H. MacDonald, Public Roads.

Harry Slattery, Rural Electrification Administration.

H. H. Bennett, Soil Conservation.

Harcourt Morgan, David B. Lilienthal, James P. Pope, Tennessee Valley Authority.

The late Colonel F. C. Harrington, Works Progress Administration.

Arno B. Cammerer, National Parks.

James Lawrence Fly, Federal Communications Commission.

R. H. Rutledge, Julian Terrett, Grazing Service, Dept. of Interior.

And to others in Government Service and also to the National Resources Planning Board and to *Fortune Magazine*.

These men and others not only furnished data and information, but added personal advice and observations to myself and Mr. Gillan.

FOREWORD

DURING the past ten years I have been closely associated with many of the men and of the events that have determined our national policies. In some of those policies I have played a part; in most of them I have had a voice. Yet in retrospect I feel that I cannot better the concept of American evolution which I first tried to make articulate in the early stages of our rapid national evolution under Roosevelt and the New Deal.

It is clear that our generation has been forced by events to live amid the wreckage of past dreams, forced to readjust the fragments of those dreams to reality, compelled or inspired to remake the dreams that made America, into something tougher, deeper and more vital than the shattered visions of the past. Above all, our generation has been compelled to discard the rhetoric and the catchwords and to rephrase our American dreams in terms of the facts. For in the long run, the facts themselves are sovereign and determine our attitude.

As I see it, we live amid the ruins of four splendid American dreams and are even now engaged in a tremendous struggle to determine whether the original American Dream itself shall survive in a world of totalitarian tyranny. There was the old dream of the first colonists, the dream of the limitless lands of the West, lands which would make every man a king, lands which would assure the prosperous growth of the American nation for five hundred years. Then there was the dream of the 'Men of the Western Waters,' the dream of the rivers and lakes and streams which haunted our diplomacy and our civil war and our folklore and our music.

This dream began to fade with the smoke of Grant's cannon before Vicksburg and was dim when Mark Twain wrote of Tom Sawyer and Huck Finn. Then there was the dream which followed the tariffs and the banking laws which crowned the Northern victory in our War between the States, the dream that industry would make us all rich and secure, the dream that every American boy could hope to grow up to become a millionaire. This dream died as recently as 1929, amid the bread-lines, evictions, foreclosures and bankruptcies of the Great Depression, just as the first dream — the dream of limitless land — had faded in the 1890's with the end of the American Frontier and was dead and buried in the dust-storms of the 1930's.

Then there was that other dream, the dream of men like Wilson and Root, of Hughes and Borah, the dream that America was destined for peace, that America was different from the Old World and could escape the wars and bitterness and conflicts which had made European history a stirring but blood-spattered chapter in the martyrdom of man. This dream received its death-blow in 1918 and perished utterly twenty-one years later when the triumphs of Hitler's Germany made the American people realize that their country had become a part of world politics and could not escape the universal destiny and duties of the planet.

And finally, of course, there is the oldest American dream of all — Jefferson's dream of 'life, liberty and the pursuit of happiness' — the idea of human freedom under democratic government — the belief that liberty was necessarily more powerful than all the forces of human tyranny. That dream has not yet been surrendered and the test of our times, as in those of Lincoln, remains whether any government dedicated to these principles can long endure.

I have spoken of these dreams. In the pages which follow

I shall try not to speak of dreams but to array the facts by which men must measure the truths which they profess. General principles and shibboleths, in my belief, are but common denominators for a multitude of individual beliefs and experiences. Speak to a hundred men of liberty and they will seem to understand you, though to each of the hundred liberty means a different sort of thing. Speak to the same men, one by one, and there are a hundred different gradations and concepts, all of which ultimately rest on the individual's own contact with the facts on which our liberty is based and by which it must be judged.

Hence it is my firm belief that the America of the future, whose foundations I have tried to survey and whose character I have hoped to understand, will itself be the expression of our dreams, and that these dreams will in turn be the expression of the facts which determine our tenure on this continent. I hope for no future which will console itself for present adversity with the memory of past splendor, as Dante's Italy dreamed of Imperial Rome even as it was prey to the princelings and freebooters. I hope rather for a future in which horizons will expand and institutions will be simplified, a future in which men serve the small realities in order that the great reality may serve them.

As I do not propose to discuss dreams any more, neither do I propose to discuss politics at all. Yet I should be faithless to the facts and to myself if I did not set down my conviction that the men and women who have served the policies and fortunes of the Roosevelt administrations since 1932 — as well as their forerunners in previous governments — have deserved well of the Republic. That they have remade America is untrue, but that they have helped the American people to remake their country along broad, imaginative and intensely practical lines is established his-

tory. If America survives as a nation, a culture and a civilization, it will be largely due to their efforts, often thankless, and all too often unsupported.

Yet they too, their successes, ideals and plans, must in turn be judged by the facts which they have created. I contend that the facts are their best justification and that it needs no argument as to the purity of their motives or their agreeable human qualities to put them to the test by which all dreams and institutions must be measured. What they have helped to create is what the American nation is about to defend, and the test of their achievement is whether America considers itself worth defending by the united efforts of a numerous, virile and inventive people. By this test we shall all be judged, and nothing I or anyone can write or say about it will make the slightest difference in the verdict of history.

J. F.

WASHINGTON, D.C.
August 4, 1941

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PART I

PRELUDE TO ADVENTURE

CHAPTER I

THE NEW ATLANTIS

FOUND: AN OLD CONTINENT

WHEN the Jamestown settlers and the Pilgrim Fathers first set foot upon the continent of North America, as a result of two important historical events — the invention of the keel for sailing-ships and the destruction of the Spanish Armada in 1588 — they believed that they were establishing English colonies in the New World. Actually, they were founding American communities in an old world.

Even when the Northmen had come, the New World was already old. Its very contours bespoke a geologic past in which it might have been part of the great land-mass of Europe-Africa, which had split away to the west. Farther south, the civilization of the Aztecs and the Mayas indicated a cultural development extending back for centuries before Columbus. The New World was new only in the eyes of the Europeans. By every other standard, it was as old as Egypt.

Age after endless age, North America had been formed in the forge of time — a continent built like a fortress, stored with incalculable wealth of timber, minerals, land, and water, like a treasure-chest, a land which had known volcanic fires, ice ages, earthquakes, and catastrophes immeasurable. The quiet seas had flowed not once but many times over lands which now tilt upward to the Rockies in limitless

prairies and high, wind-swept plains. Rain and sun, frost and fire, ice and wind, had carved and scoured the country. Aeons of fierce tropical life lay buried deep under the rolling hills of the Appalachians. The graveyards of infinite generations of living creatures fed the hidden oceans of oil. The mountains of the West were veined with gold and copper, silver and iron. The great northern ice-cap, as it retreated towards Greenland, had left behind a maze of lakes and rivers, with occasional coulees or glacial gorges to mark where the weight of waters had ripped their way through mountains of solid rock for countless thousands of years. In the Southwest, the land lay riven and desolate, as though a thousand volcanoes had fought with ice and water and left a moon-scarred desert as the theater for the terrible game of frost and fire. Great rivers, the size of which was at first unsuspected, poured an infinity of water through the continent, while lakes distinguished a land the like of which had never before been known.

And all the time, century after century, the ceaseless winds blew from west to east, the ice nudged its way south in the winter and retreated in the summer, the rains fell and the earthquakes followed the great faults in the ageless rocks, and the land swelled and crumbled, grew rich or stricken, quivered and shifted, under the caress of the eternal elements.

THIS WAS THE LAND THE EUROPEANS FOUND

It was a grand land, designed with the simplicity of a masterpiece. Along the Atlantic seaboard, where the settlers first came, hills old in geologic time had been worn smooth and rounded by the passing of the centuries. Great rivers cut their way through to the Atlantic, but behind the fringe of coastal plain lay a tangle of mountains without

parallel in European experience. Range after folded range crossed each other, turned back and misled the new men who had arrived to lay claim to the richness of the new land. The very rivers, which at first seemed to offer a clue to the wilderness, merely led to a labyrinth of mountains. Only the broad St. Lawrence in the north offered a channel which flowed behind the mountains and reached for the lands beyond them. For a hundred miles of storm-tossed earth the mountains lay, and beyond them was the richest valley in the temperate zone — the basin of the Mississippi River, with its tributaries stretching from a little south of Lake Erie and the flanks of the Great Smokies as far west as the High Rockies of Colorado and the Yellowstone River in what is now Idaho. And there, far to the west, beyond the rim of the world, the mountains really began. The Rockies and the Cascades and the Coastal Range, stretching for nearly a thousand miles, from the high wind-swept plains of Wyoming and Montana to the waters of Puget Sound and the smoking fogs of the Japan current which bathed the Pacific coasts. Between the Western ranges was a high plateau, a broad continental roof-top a mile high, a land which even today has only three sure passes through to the Pacific. As in the East, the rivers which seemed to lead inland in the West were themselves lost in the wilderness of mountains.

This was the land the Europeans found, with their Bibles and their flintlocks, their plows and their horses. Over most of it stretched a virgin forest, hardwood and pine; it teemed with game, ducks, beavers, pigeons, and buffaloes. In Mid-America and to the south, where the slow rivers crept through the savannahs, there were clear grass-lands — the prairies; and out on the Great Plains, still far beyond even the dreams of the settlers, the dry soil was bound by buffalo-grass on

which subsisted the great herd of bison which were the support of the Indians of the Plains. In the Far West were other forests, including the giant sequoias which had been old when the caravels of Columbus had blundered into the West Indies, believing they had found Japan. In the East, the forests were so thick that they created a darkness, a gloom, an emotional oppression which weighed on the spirits of men and women, causing them to huddle together in tiny settlements even as they had huddled together in the small feudal villages from which they had come. Disease, insects, wild beasts, and savages were harbored by the forest, and the settlers in their New World came to hate them all with abiding fear and fury — those who survived. The climate was like nothing they had ever experienced — winters as cold as those in Scandinavia, with high-piled drifts of snow and the north wind sweeping grandly down from the Pole, and fear and loneliness; summers as hot and moist as those of Palermo and Marseilles, with the thunder-storms smashing and slashing, and the stifling, steamy nights, with the mosquitoes singing and no wind to ease the brow; spring short and bursting to summer; autumns clear and cool and still and incredibly colored, with the maple leaves drifting down onto the ponds and streams and the sky a pure, heart-aching, whitish blue, and the stags fighting on the clear frosty nights and the bears grumbling and rooting for the coming winter's sleep, and the redskins on the war-path, daubed with war-paint, scalping knives at their deer-skin belts, stinking of bear grease, running silently like wolves along the secret trails, ready to burst upon a white settlement. Then again the cold and snow and darkness of the long winters.

WITH BIBLE, AXE, RUM BOTTLE AND PLOW

For the white man was far from being the first, and almost as far from being the most civilized, race which had found a footing upon the North American Continent. Far to the south, in Mexico and Yucatan, there had been Indian civilizations — those of the Aztecs and the Mayas, which had evolved a high and admirable level of culture, without — unfortunately for them — knowledge of the Bible, steel, gunpowder, alcohol, horses, and navigation by which the white men overthrew them. In the Southwest were ruins of civilizations still older, ancient cliff-dwellings and traces of a culture already prehistoric, where the shift of climate and the drying-up of pastures had isolated and destroyed whole tribes and nations. All over the North and the East of the continent wandered the Indians, the savages who were moving northward as the darkness ebbed and the glaciers retreated, the red-skinned people who had driven out the Northmen and had destroyed the first English settlements planted along the Virginia and Carolina coasts. These Indians, it is said, had recently been stricken by a plague which had driven them away from the coasts for a time, and were only beginning to venture back to the pebbly beaches of the North Atlantic when the white men came. For that reason, it is said, the Indians lacked the numbers and the spirit to fall upon the intruders and destroy them, so that when they realized the danger of white invasion, it was too late. The white settlements could not long have been postponed, however, since the urgent problems and the growing power of the European peoples must sooner or later have bridged the stormy three thousand miles of ocean and established bases in North America from which to expand their civilization and their kind.

The process had, indeed, begun. A hundred years earlier the Spaniards had enslaved the Indians of the Caribbean, Mexico, and South America. The French, moving suavely and with civilized might along the path of the St. Lawrence, established themselves at Quebec and Montreal, and sent their priests and soldiers, their trappers and traders, through the Great Lakes, down the Ohio and the Mississippi and deep into the West without meeting serious opposition. The Swedes and the Dutch, also, established themselves on the seaboard with no difficulty in making terms with the savages. It was chiefly the English settlers, coming to found permanent homes in the New World, who soon became involved in a deadly struggle for survival with the savages, a struggle which ended only two hundred and fifty years later with the surrender of Geronimo.

In their slow, remorseless conquest of the lands held by the red men — all the way from the Deerfield Massacre to the Battle of Fallen Timbers and Custer's defeat on the Little Big Horn — the white settlers overlooked one important fact.

The mode of life of those whom they called Indians — since in their innocence the early discoverers had believed that North America was indeed the fabulously rich Indies — was one which had been imposed by Nature itself and, with all its limitations, was not calculated to disturb the balance of Nature or to destroy the heritage of the continent. To the Indians the country was a gigantic game preserve. They practiced a rude husbandry, growing corn and tobacco and beans, but in the main they lived upon game and fish. They made their boats from the bark of trees and their clothing and wigwams from the skins of animals. Tribe might and did fight tribe for possession of good hunting-grounds, and the Great Confederacy of the Six Nations, the

Iroquois, might indeed establish a form of federal union which was not unobserved about the time of 1787, when the white men attempted to do the same sort of thing. But on the whole the Indians were as much a part of the land in which they lived as were the deer and the beavers, the blue jays and the flying squirrels. Neither their civilization nor their wars, their politics nor their culture, left deep scars on the surface of the land. North America was, in brief, a land which savages might inhabit with impunity; it had yet to be demonstrated whether the mighty fortress between the Rockies and the Appalachians, the great valley from the Lakes to the Gulf, was safe for those who did not take their lessons from slow Nature and tribal tradition, but referred all great issues to the Bible, the axe, the rifle, and the rum bottle.

CHAPTER II

ATLANTIS LOST

EUROPE EXPANDS INTO PARADISE

THE newly discovered America was the nearest thing to earthly Paradise for the white or any other race. The Europeans were the natural products of a closed society and a closed economy — imprisoned in a static system which had been hemmed in for centuries by the Ottoman Turks and the Golden Horde and spreading Islam. The trade routes to Asia which had nourished the Roman Empire and preserved Byzantium were cut by the crescent-shaped scimitars of the Saracens and Turcoman tribesmen from the steppes of Central Asia. In what was later to become Russia, the Mongols had erected a nomadic empire on the wastes left by Tamerlane and Genghis Khan. All Africa, from Suez to the Pillars of Hercules, the provinces which had been the granary of the ancient world and the goal of the Vandal freebooters, had fallen before the Arabs, while the Moors had surged up into France as far as Tours. The British Isles were no more than the seat of a number of primitive principalities, while Genoa and Venice, which had been the sea lords of the Middle Ages, faced ruin after the Crusades had failed to withstand the march of Islam and after the Turks took Constantinople.

Then, in fifty years, came a great human miracle. The Portuguese ventured south along the sweltering African

coasts and found a sea route to the Indies. Castile and Aragon united to drive the Moors from Spain and released Columbus upon the Western Ocean. As vested right and papal authority sought to confirm the monopolies thus achieved, northern Europe grew restive and rebelled in the so-called wars of religion. England, Holland, France, Germany, and Sweden found themselves on the main path of trade for the first time in history. Squabbling and bickering, intriguing and overreaching, the Europeans burst upon the New World fully equipped with the essentials of conquest.

IT WAS A KILLING BUSINESS

They had the Bible, which taught them that it was their duty to God to subdue and convert and even to enslave the heathen. As the Indians proved to be intractable laborers, the moral sense of the colonists found no difficulty in transporting African negroes to the Americas, thereby providing souls for Christianity and labor for the owners of estates. They had vessels and instruments which made it possible to cross the Atlantic with a fair certainty of reaching their destination and keeping their settlements supplied. They had gunpowder, that invention of the Orient, by which the few could overcome the many. They had steel in axe and cannon and plow with which to combat civilization still dwelling in the age of stone and copper. They had printing and writing by which exact information could easily be imparted at great distances and over long periods of time. They had alcohol, a drug to which Europeans had from time immemorial been habituated, with which to befuddle and seduce the savages. And above all, they were escaping from a social prison into one of the world's greatest treasure-houses.

Disease and climate, unfamiliar foods and unaccustomed toil, took heavy toll of men, but the wealth of the Americas remained for over four and a half centuries the lodestone, the Aladdin's lamp, for the peasants and the nobles of the European countries. Even in North America, where exploration and settlement lagged at least a century behind the conquests of Spain in the Indies, Mexico, and Peru, nearly three hundred years elapsed between the first permanent English colony in Virginia and the closing of the frontier. As in the Old World, the white men continued their tribal battles in their New Atlantis — French against English for a hundred years, English and American against Spaniard for another century, Dutch and Swede, Dane and Frenchman, jostling the Spaniard in the Caribbean. Cromwell's Commonwealth seized Jamaica. Wolfe and Montcalm died on the Plains of Abraham. Cornwallis surrendered to the French and Americans at Yorktown. The new Republic grew and shook off the French tutelage and made terms with the English. Yet the wars were never very bitter, for there was in truth more than enough for all, and still more than they could imagine.

THE WAY OF THE LOCUST

Then began the greatest migration of peoples recorded since the German tribes burst through the Roman walls and rolled across the Empire in the fifth century after Christ. The white man found his lost Atlantis ready for the taking. They came from every land: German and Slav, Italian and Spaniard, Englishman and Frenchman, negroes and Chinese as slaves or laborers, trickling and pouring across the stormy waste of waters to the Promised Land. Irish fleeing famine, Central European victims of religious or political reaction —

the American frontier was the world's frontier and there was nothing to stop the transplanted Europeans. They had the guns and the numbers, the intelligence and the organization, the lust for land and the desire to escape from ancient bondage. The handful of Indians was ground down to a beaten remnant, herded on reservations which were tribal concentration camps. By 1815, the last real threat of colonial wars had disappeared with the actual or nominal independence of the principal European settlements in the New World.

If an astronomer on the moon had been able to observe the Western Hemisphere then through a powerful telescope, he and his successors would have noted a strange change in its appearance. The axe ate away the forests with increasing rapidity. The plow turned the sod of the prairies. On the coasts and at the head of navigation on the rivers, little spots would have been observed as towns and cities came into being. The waters along the coast were dyed far out to sea as the rivers drained the waters off the naked land. Spidery lines crept across the country, first wagon trails, later canals and railways, feeling and fumbling through the mountains.

In the middle of the nineteenth century, a strange haze began to obscure the little spots which marked our cities. Coal had been discovered, and with coal the movement speeded up. Oil was found, and with oil strange metal creatures began to stir and move with a life of their own. Machines plowed up greater stretches of land, turning the green to brown, stripping the cover of the land on the plains, as the axe and saw were ripping the forests from the hills.

THE PLUNDER WENT EAST

All of this time a stream of wealth — of things useful to or desired by man — flowed eastward across the Atlantic to the Old World. A few 'spoonfuls of gold' in the galleons of Spain struck Europe with an electric shock and gave new motion and direction to the ancient economy of feudal rights and duties, twisting the polity of Christendom as a tornado twists and wrecks the trees of a prairie wind-break. There followed, century after century, the endless flow of lumber and sugar, cotton and tobacco, cattle and wheat, copper and zinc and iron and oil — to nourish the ancient peoples who were exploding into unexampled fecundity. Then began the world system which is only now drawing to a close, in which the Old World reared the children for the New Atlantis and the New World supported its European motherlands with loyalty and tribute. As symptom of this process is the vestigial instinct by which in the United States of America it is easier to stir sympathy and raise funds for feeding the peoples of distant Europe than for feeding the poor and undernourished children of the Americas.

Just because the Americas served as the cornfields, woodlots, and cow pastures of those who had remained in the Old World, they were exploited with a haste and an eagerness for results which would have been scorned in the Eastern Hemisphere.

The result was one of the great human catastrophes. As the repeated wars of the nations of the Old World weakened their political power and commercial control in the Americas, the New Atlantis began to study its own interests and to envisage its own future, independent of the whims and the ambitions of the ancient nations from which it had sprung. Thus, as the affairs of Europe approached economic desper-

ation, the sympathies and the resources of America began to be withheld and even to be withdrawn. This increased the desperation of the European peoples and forced them into political and economic convulsions which were calculated once more to link the interests of the Old World with those of the New. At the same time, the peoples of the New turned and began to understand how cruelly they had abused their golden heritage and to seek to remedy the wrongs that they had done.

A HARVEST OF WRECKAGE

They had not understood that the vast size of their continent had its own laws, that these laws were inexorable, and that to these laws they must submit. The devices which had proved most effective in order to develop and exploit the wealth of North America were not by any means the devices which were best suited for the development of an enduring civilization. The eastern area was scarred with the wreckage of what had once been rich farms. The topsoil was giving out, not only there but in the granary of North America. The forests had been thought inexhaustible, yet as early as the first decade of the twentieth century, the people of the continent faced the possibility of a timber shortage. The petroleum had been thought inexhaustible, yet the closing years of the World War of 1914-18 found the American Government in a political and naval duel with Great Britain for control of foreign oil-fields as the American reserves dwindled. The cultivation of cotton had been the backbone of our foreign trade for more than a century, but by 1930 it was clear that cotton was impoverishing the entire South and debasing the Southerners who grew it into a condition which had become intolerable to them and to

the nation. Free labor had been the principle of the American economy since the War Between the States, yet not even the shutting-off of immigration could prevent the ominous growth of mass-unemployment. Easy money and flexible credit had propelled our commercial system, yet the nineteen-twenties witnessed a steady increase in bankruptcy and bank failures, culminating in a disastrous collapse of the entire financial mechanism.

What might have been a Garden of Eden for a new breed of men, freed of the tyranny of ancient hatreds of race and creed, had become the arena for ugliness and hardship, grinding poverty and wasted wealth. What had held the promise of the Fortunate Isles, the New Atlantis, had become just another country, reproducing the fear and the greed, the insecurity and the want, of the Old World societies which were struggling for existence on a diminishing economic base. We had come near wrecking the richest continent in the world, with the threat before us that the deserts which had drowned northern Africa and Asia Minor in the sterile sea of sand would march across the Great Plains into the Great Valley which held our wealth. We faced the alternatives of descent into Chinese squalor or the painful and expensive task of proving that we could match wits and power with the forces of Nature and that there was still time in which to remake our New Atlantis into something bearing resemblance to the dream that had drawn our ancestors to venture into the wilderness. For the first time since the white men set foot upon this continent, our whole society became conscious that men can make their own destiny and that we, too, could hope by taking thought to add to our national stature.

CHAPTER III

ATLANTIS REGAINED

AMERICANS DECIDE TO STICK

NO SUCH challenge had ever before confronted a virile nation. Here were the American people, numerous, energetic, with enterprise and inventiveness. They possessed the knowledge, the equipment, the machinery, and the organization with which to deal with their problems. They had no foreign enemies sufficiently near or sufficiently powerful to preoccupy their attention. They lived in a land which was, even after three centuries of spoliation, still a treasure-house.

So far as physical opposition was concerned, nothing stood between the American people and practical realization of their ancestral dream of making every man a king. America could become both an Eden and a fortress, invulnerable in time of war, inimitable in time of peace, with a wider distribution of wealth, security, knowledge, and freedom than had ever been imagined by the Old-World inventors of Utopias.

Yet the gap between what was possible and what had been achieved was so wide that there were several Old-World nations which, with only a tithe of our New-World resources, could lay claim to having achieved a higher degree of freedom, equality, and security than had the Americans themselves. The spread of the diseases of ignorance, poverty,

and malnutrition — tuberculosis, pellagra, hookworm, and syphilis — was evidence that all was not well with the New Atlantis. The coagulation of millions of Americans in the industrial areas and the steady growth of great fortunes for a few were proof of a faulty social organization. The persistence of the parallel phenomena of unemployment, unsold inventories of goods, and unused productive capacity bespoke an inadequate economic system. The rise of mass-insecurity, of evictions, foreclosures, and bankruptcies, created critical pressures on American political institutions. The challenge, when it was recognized, was a challenge to our intelligence rather than to our courage, to our perseverance rather than to our endurance, to our imagination rather than to our patriotism.

THE NEW PLAN

On the one hand, the course of events lay plain before us. We could continue as we had begun and could look forward to the end of our economic virility within another eighty years. Our resources would not last indefinitely. Our forests and the fertility of our fields were clearly failing under the strain of waste and misuse. The patience and good-humor of our people were also wearing thin, and the high-hearted inconsequentiality with which we had hitherto faced adverse destiny could not continue forever under the strain of disease, poverty, and insecurity. Like the Teutonic tribesmen and Arabs who had also overrun an economic society which they did not understand and could not administer, we seemed doomed to a predictable decline in power and civilization.

On the other hand, it was possible to alter the destiny which we had created for ourselves. It was possible for a

race or a civilization, facing disaster, to modify the character of its motives and the temper of its institutions. It was conceivable that the American people might shed the colonial mentality which had put a premium on rapid exploitation of valuable resources and so achieve a mature civilization which would prefer to distribute, conserve, and enjoy the benefits of orderly social life.

Somewhere between 1900 and 1935, within the span of a single generation, we actually made the decision. It was in the first decade of the present century that Theodore Roosevelt and Gifford Pinchot first called attention to our dwindling national resources and warned that we could destroy our heritage by unwise and overhasty development. But the outbreak of the World War in 1914 again put a premium on the colonial methods of our economic and financial system, and for nearly a decade we proceeded at a still more rapid rate of reckless operation. The farm depression of the early nineteen-twenties served merely to shift the colonial current into industrial lines. For nearly another decade, the banks financed a tremendous volume of industrial exports to the Old World, until the economic depression which began in 1929 came to check activities.

THE END OF COLONIAL MENTALITY

At that time, the whole world began to shift to another basis which recognized the fundamental reality: that America had practically ceased to be an economic adjunct of Europe. After a century of colonial warfare and after American participation in two world wars, it became clear that the United States was not longer able to serve as an outlet for the surplus population of Europe, that American raw materials were not going to be exchanged indefinitely

for European manufactured goods, and that American credit could no longer stand the one-way strain of financing American exports to Europe. Soviet Russia had already begun to practice economic autarchy under the first Five-Year Plan. Hitler was soon to come to power in Germany with the deliberate purpose of applying his concept of a work-economy to what he called the New Europe. The British Commonwealth of Nations began to practice imperial preference in their trading and their tariff policies. Japan began to carve Eastern Asia into a 'new order.' The rest of the world began to try to live alone and like it. With some bewilderment, the American people turned away from Europe and began to apply themselves to the solution of their own gigantic problems.

A GIANT ON THE HOME FRONT

The fact that their problems were gigantic is the key to the explosion of activity which the Americans released. Size is, in itself, a major problem, and the scale and the dimensions of North America provided both problems and remedies on a huge scale. For it is one thing to dam the Shannon River in Ireland for power, but it is quite another thing to dam the Mississippi, the Colorado, or the Columbia River. It is one thing to institute housing reform in Sweden or in Czecho-Slovakia, but it is quite another thing to rehouse the majority of a hundred and thirty million Americans, living under every sort of climate and engaged in every conceivable form of economic activity. It is one thing to contrive the dole or unemployment insurance in England or Germany, but it is another thing to establish a similar system in a nation which is nearly half agricultural in character, with industries scattered over the surface of three

million square miles of federated commonwealths. It is one thing to administer the social and economic affairs of an old, deep-rooted, disciplined people, but it is quite different to deal with the maladjustments of a nation which is still forming itself from the influx of peoples of every race, creed, color, and degree of civilization, from African savages to highly cultured western Europeans.

Size is the factor which runs like a theme-song through every scene and every act of the American drama. It is the chief thing which distinguishes us from other nations, even from the Soviet Union, whose problems most nearly approximate our own. For the majority of the subjects of the Soviet Union are concentrated in a few provinces of European Russia, while our people are remarkably evenly distributed throughout our territory in relation to our economic resources. The British Empire controls far more territory and claims the allegiance of many more human beings than do we, but the economic affairs of that Empire are decentralized and the major political decisions of Great Britain are taken without direct reference to the wishes of the peoples of the Empire, while all our communities are represented directly in the counsels of the Federal Government at Washington. Until the American people understand both the opportunities and the limitations which the sheer physical size of their country imposes on them, they will never understand the true nature of their troubles or their destiny.

REDISCOVERY IN THE THIRTIES

It was, historically, in the early nineteen-thirties that the American people set about the rediscovery of their lost Atlantis. They did so reluctantly, even bitterly, and only out of sheer necessity. There had been intimations in the

past that the possibilities of adventure were not ended by the closing of the American frontier, but those possibilities had seemed to be confined to the arithmetical achievements of the business world and to successful speculation. A Rockefeller, a Ford, a Morgan, a Jim Hill, or a Harriman might develop the ability to see the country as a whole, but the ends to which this vision was directed doomed it to fall far short of the goal. Only after the Wall Street collapse had ended the tradition, which began with Jim Fisk and Jay Gould, that every American boy could hope to become a millionaire when he grew up, was it possible for the American people to see their Promised Land unblinded by dollars, though dismayed by poverty and disappointment.

In the nineteen-thirties we began to cultivate our garden and to discover that we possessed the greatest garden in the world.

‘REVOLUTION OF FREEDOM’

During those years, there could be found evidence of a real revolution in any section of the country, in almost any county, in every sizable city, and in a tremendous number of towns and villages. Everywhere there was an almost incredible welling-up of energy and construction. Along the course of our great rivers, in our forests and mountain ranges, on the endless prairies — everywhere, the American people were at work on things which did not bear a very direct relation to their own bread-and-butter, things which, in detail and in the aggregate, were restoring the patrimony of the nation.

Schools, auditoriums, courthouses, post-offices, jails, hospitals, gymnasiums, armories — all were springing up, and with them were also springing up new houses for ordinary

people to live in. Roads were being graded and improved. Ribbons of concrete were flowing over the countryside. Huge bridges were being flung across our great rivers. Harbors were being dredged and deepened, breakwaters and lighthouses built. Parks were being established, game refuges set up. There were new playgrounds and swimming pools. There were new sewers and sidewalks, new privies in the rural South, new farm communities throughout the nation. Dams larger in size than the Great Pyramid were blocking the waters of our Gargantuan rivers. Power-lines were marching from dynamos to factories and homes. Fields were being terraced. Levees and check-dams in gullies were holding back the waters. The deforested mountains of the East were being replanted in seedlings. Nearly two thousand encampments of boys and young men were working steadily throughout the nation to conserve our national resources. New plays were being produced, new songs were being written, new pictures and frescoes were being painted, new hopes and new motives were finding expression. Industry was becoming a battle-field as the new forces pressed hard upon existing institutions; politics became a ferment as new ideas challenged old habits. Customs and traditions were toppling; money was flowing through the Treasury like Niagara, and yet all the warnings of all the economists fell on deaf ears as all of their prophecies of disaster failed.

For nearly ten years the greater part of the American people was engaged in an activity so immense, so variegated, and so practical that the very face of the country changed. New beauties and new customs became part of the daily lives of millions of people. The whole effect was — and still is — one of indescribable confusion, out of which slowly emerges a pattern and a meaning which perhaps the future will be able to grasp and interpret. The spirit of a new Augustan

Age seemed to touch the meanest community and to inspire — or bewilder — or infuriate — every social group.

It was as though the whole American people, out of the dangers and necessities of the present, had taken alarm for the future, and had turned in feverish intensity to the almost impossible task of undoing inside a single generation the mistakes of the past three hundred years. It was — and still is — the most colossal gamble in history. If the American people have guessed right in attempting to remake America, history will record that the 'Revolution of Freedom' was first achieved in the United States in the middle decades of the twentieth century A.D. If the American people have guessed wrong, or have guessed right too late, they will at least have the satisfaction of leaving splendid ruins for the archeologists of the future, and history will take note of the fact that no human society accomplished so much in so short a period of time with so little compulsion upon the individual.

PART II

THE LAND

CHAPTER I

THREE CENTURIES OF WASTE

OUR TWO-BILLION-ACRE FARM

THE problem of the land in Europe was one of too little land, of which too much was known. The problem of the land in America was one of too much land, of which too little was known. Limitation of natural resources in the Old World had compelled the Europeans to try a wide variety of systems of tenure and society, ranging from Roman freeholding to the great slave-labor plantations, from the feudal fiefs to absentee landlordism, and ultimately to division of soil among the peasantry, by confiscation as in France or by purchase as in Ireland. The size of North America encouraged men to discard the lessons of the past generations of peasantry and discouraged and even penalized all efforts to appraise the real character of the new-found lands of the West.

It is the sheer unprecedented size of America which has made it difficult for transplanted Europeans to realize its nature. There are tremendous woodlots — all along the folded ranges of the Appalachians from the White Mountains of New England to the Great Smokies — where trees should be the rule rather than the exception; the woodlands which dwarf England's New Forests are but a tithe of the natural woodland in the continental United States. There are grass-lands, mountains, waste-lands, and arable fields

to match — on a scale which dwindles the Old-World concepts.

Two billion acres — over three million square miles — is the present area of the continental United States. About half of this area is land fit for farming and stock-raising, and even after generations of reckless cutting of timber, about a third of our territory is still under trees. Iron, copper, lead, zinc, gold, silver, coal, petroleum, and natural gas lie locked under the soil in such abundance that after a full century of reckless depletion, we still count our reserves in the billion tons, billion barrels, trillion cubic feet.

WASTE UNTIL THERE WAS WANT OF LAND

Nonetheless, in three hundred years of wasteful exploitation, we have lost incredible wealth. Nearly three hundred million acres of our land have been ruined or severely damaged by soil-erosion, which has cost us an estimated twenty billion dollars in the last fifty years. We have cut down over half of the forests which awaited the early settlers. In one gas-field alone in 1934, a billion cubic feet of natural gas — enough to supply every household in the United States — was blown into the air every day. More astounding was the waste of our pasture land. Long before there were English settlements clinging to the Atlantic coasts, the Spaniards had set up a great cattle civilization in the Southwest. In 1540, Coronado had led an expedition into New Mexico, in quest of the fabled Seven Golden Cities of Cibola. Many years before the *Mayflower* landed the Puritans and their furniture on New England's stern and rock-bound coasts, Oñate established a colony of farmers in the fertile valley near Sante Fe. The conquistadores and the mission Fathers brought sheep, cattle, and horses into the

Southwestern region, founding the livestock empire of the cowboys and the ranchmen which persisted until the blizzards of the eighteen-eighties.

In 1806, Pike wrote that 'these vast plains of the Western hemisphere may become in time as celebrated as the sandy deserts of Africa. . . . From these immense prairies may arise one great advantage to the United States, to wit: the restriction of our population to some certain limits, and thereby a continuation of the Union. . . . The inhabitants would find it to their advantage to pay attention to the multiplication of cattle, horses, sheep and goats, all of which they can raise in abundance, the earth producing spontaneously sufficient for their support.' Yet within a hundred years of the writing of this observation, all of these vast plains and prairies had passed under private ownership, after wars between the cattlemen and the sheepherders, wars between the stockmen and the squatters, 'Hunyakers' and homesteaders, wars between all of them and the railroad and mining corporations which got title to the gold, silver, lead, copper, and oil beneath the land. And by 1934, the overgrazing of a Western range as great as all of Argentina had become so serious an economic problem that the Government called a reluctant halt to the free use of the grass-lands, by the stock-growers.

THE COLONIAL AND REVOLUTIONARY FATHERS HAD PROTESTED

A full generation earlier, the need for conservation had become acute, as in fact it had been since the dawn of the Republic. It was the effect of soil-erosion which drove the pioneers ever westward in search of more land and easier tillage. Added to this was the human lust for easy money

which has haunted American history from the very first. Columbus, in presenting his prospectus to the Spanish Court, wrote of America that 'the fields were very green, and full of an infinity of fruits.' He wrote that gold was everywhere, at the foot of the trees and in the streams. Much the same thing has been repeated with suitable variations from 1492 to 1942, by promoters and real-estate salesmen.

Land and money were the lures with which the New World drew the speculators, miners, trappers, prospectors, merchants, farmers, explorers, and woodsmen westward. As the westward rush gathered force, the landed people of the seaboard began to take alarm at the waste of the soil of the New World. In the Virginia Tidewater, the first William Byrd cleared a tobacco-field and lost in one cloudburst not only the crop but 'all the top of the manured land.' The early British Governors tried to make the colonists plant trees and diversify their crops, but the lure of the land was irresistible and cash-cropping was necessary to pay debts in London. Long before the Revolution, American farmers discovered what it meant to raise money instead of food. Early settlers in Massachusetts had to pass a law against overgrazing in the meadows of Cambridge. In post-war years, Patrick Henry announced: 'Since the achievement of our independence, he is the greatest patriot who stops the most gullies.'

The independent colonies offered prizes for the best way of 'recovering old gullied fields to a hearty state.' Owing to gullying, Washington gave orders that one-crop farming be abandoned at Mount Vernon, and gave up corn and tobacco as crops. He wrote that 'We ruin the lands that are already cleared, and either cut down more wood, if we have it, or emigrate into the western country.' In that same 'western country,' Thomas Jefferson studied the helpful effects of

contour plowing, but the tide of cotton culture swept away science and led to a headlong scramble for Western lands on which to grow money crops quickly with cheap labor.

CONSERVATION BECOMES A NATIONAL POLICY

Fundamentally, the land and its use have been the battleground of the American people: the soil itself in range wars, the surfaces of land covering oil-pools, the mad search for gold, the waste of timber by lumber barons, the huge railroad land-grants, the gold-dredging methods in the West which turn fertile valleys upside down in the search for gold dust and nuggets. Yet to preserve the soil and its fertility is easier than to find short-cuts to wealth once the soil has exhausted its capacity to support life. As the land wore out, men turned to government for methods of restraint and recovery.

It was not until the twentieth century that the Federal Government accepted responsibility for a solution of the land problem. During the nineteen-thirties, supporters of the Roosevelt Administration often argued that the 'New Deal' was nothing 'new' in American history, but was simply the continuation of policies which had begun long before the election of 1932 gave major approval to the wholesale program of conservation and reconstruction begun after the New Deal victory of that year. Certainly the national conservation program had roots reaching back to the administration of Theodore Roosevelt and even earlier. The basic principles of the New Deal, with respect to the administration of natural resources and the federal control of water-power, had been solidly established in the first decade of the twentieth century, while the idea of a public interest superior to private exploitation dated back to the first administration

of Ulysses S. Grant. For the first sign of national conservation began with the establishment of Yellowstone National Park — thirty-five hundred square miles in the northwest corner of Wyoming — in 1872. This conservation movement speeded up at the end of the nineteenth century, when the end of the frontier brought about drastic changes in our national land policy. It succeeded in reserving much of the public forests and mineral lands in the public interest. As early as 1891, an Act of Congress authorized the reservation of forest-lands in the public domain and large areas were set aside as national forests, while other sections were withheld for their mineral resources. Later this policy was expanded to permit the national purchase of privately owned land for recreational facilities, forestation, and game refuges. The first great effort for conservation was begun by President Theodore Roosevelt and his famous Chief Forester, Gifford Pinchot, when the Department of the Interior was entrusted with national forests, national parks, Indian reservations, unclassified public lands, mining, and fisheries. In 1908, Theodore Roosevelt called a White House Conference of governors and experts to discuss conservation. Since then conservation has become a principle which has extended far beyond forests, minerals, parks, wild life, and other attributes of the public domain. It now affects the national attitude towards farm-lands, water-supply, and flood-control, and is extending itself to such matters as health, education, nutrition, and work-relief.

Chief executives as diverse in temperament and politics as Grant, Hayes, Cleveland, Harrison, Theodore Roosevelt, Taft, Wilson, Coolidge, and Hoover contributed to the national conservation policy, while generations of federal employees gradually assembled the data and traced the foundations for the accelerated program which occupied



Farm Security Administration: Photo by Post

THE RICH FARM-LAND
PENNSYLVANIA



ERODED LAND BEFORE TREATMENT

AFTER A YEAR AND A HALF OF CARE
TENNESSEE





Farm Security Administration: Photo by Rothstein

THE PRAIRIE FIELDS SEEM ENDLESS
NEBRASKA



Farm Security Administration: Photo by Rothstein

WITH THE GRASS COVERING TORN OFF, THE SOIL IS FREE TO BLOW, MONTANA

CATTLE AT DRIED-UP WATER HOLE, MONTANA

Farm Security Administration: Photo by Rothstein





U.S. Forest Service: Photo by Carl K. Benson

FOREST PLANTATIONS ARE CARED FOR LIKE GARDENS
MISSISSIPPI



U.S. Forest Service: Photo by K. D. Swan

PLANTING ONE OF THE C.C.C.'S EIGHT BILLION TREES
MONTANA



U.S. Forest Service: Photo by L. J. Pratt

SMALL-MOUTH BASS FINGERLINGS COME BY PLANE, MINNESOTA

THE BEAVERS GO OFF IN A TRUCK TO WORK, OREGON

U.S. Forest Service: Photo by Ernest Lindsa





Farm Security Administration: Photo by Rothstein

YOUNG FARMER OF TOMORROW

our national energies during the decade preceding the outbreak of the Second World War. Essentially, this movement was superior to politics, though constantly subject to political action, and it is a notable fact that in recent elections all parties have been at pains to emphasize their devotion to the idea of conservation. So far as concerns the verdict of history, it is probably the conservation program of the two Roosevelts that will seem most important when viewed two centuries from now.

SALE OF THE NATIONAL DOMAIN

The problem which they attempted to solve had been growing for three hundred years, and had been made acute more by the wealth of North America than by the many failures which had attended its development. With nations, as with men, prosperity is the true test of fitness to survive. It is the satisfaction, not the denial, of human desires that tries the souls of men and of nations. Most of the struggle between the colonists and the British Parliament was for access to the limitless lands of the New World. After independence, this struggle was shifted to the internal conflict between the land speculators and land companies, on the one hand, and on the other, the pioneers, misfits, bankrupts, wastrels, and adventurers who fed the westward stream of settlement. At first, the Federal Government was influenced by the hope of revenue from the sale of public land, but by 1820 the price of the national domain was cut to \$1.25 an acre. In 1842, the law gave preference to settlers seeking 80-acre tracts. Slavery and vested capital in the Southern plantation system dammed the pressure for a generation, but in 1862 all revenue features were swept aside and the first Homestead Act passed by Congress granted one hundred and sixty acres of free land to every Union soldier.

This fateful measure was sponsored by Galusha A. Grow, of Pennsylvania, Speaker of the House of Representatives in the Thirty-Seventh Congress. It was a measure long demanded by the West and marked a distinct stage in one of the great migrations of human history. The first homestead entry was made by Daniel Freeman, of Brownsville, Nemaha County, Nebraska, soon after the first midnight in 1862. He completed his proof on January 20, 1868, and received his land-patent on September 1, 1869. He was the first of over three million pioneer families to take advantage of Grow's law, and it is said that hundreds of millions of American citizens, living and dead, owe a debt of gratitude to this statute. Yet the usefulness of the 160-acre grant had disappeared before Grow's death in 1907. The semi-arid areas of the Great Plains could not be farmed economically in such small holdings, since crops could not be raised successfully without irrigation in this region where natural vegetation was so sparse that large tracts were needed to provide grazing for one animal.

About this time, early in the twentieth century, Theodore Roosevelt had devised a new policy to regulate the use of natural resources, instead of deeding them outright to individuals and corporations. It was comparatively easy, however, to pass laws to conserve forests, oil, and minerals, owing to public indignation with the corporate exploiters. But the traditions of the past were not easily set aside when it came to the greatest of all resources, the natural grass-cover of the plains. The good lands were giving out. In 1909, Congress increased the acreage on federal homesteads to 320 acres. Seven years later, the Homestead Law was amended again to provide for a 640-acre stock-raising homestead. Thanks to this amendment, by 1930 some thirty million acres had gone into private ownership. By then,

the abuse of the grass-lands had become a national scandal which made it possible to call a halt on the waste of our last frontier in 1934.

BECAUSE THE GRASS WAS 'WRONG SIDE UP'

Already the dust-storms had given point to the warnings of the Indians not to plow up the buffalo-grass on the Great Plains and had given pathos to the eulogy of Senator Ingalls in 1872, that 'grass is the forgiveness of Nature — her constant benediction. Forests decay, harvests perish, flowers vanish, but grass is immortal. Its tenacious fibres hold the earth in place and prevent its soluble components from washing into the wasting sea.' Sixty years after this congressional prose-poem had been perpetrated, the 'soluble components' of the Western earth were not waiting for rains to wash them into the sea. They were gone with the wind, in dust-storms which carried the plow-land in clouds as far as mid-Atlantic and which restored the Great Plains to the Sahara-like conditions which Pike had admired when he described 'tracts of many leagues where the wind had thrown up the sand in all the fanciful form of the ocean's rolling wave, and on which not a speck of vegetable matter existed.'

CHAPTER II

THE FORESTS

THE IMPULSE TO TREE EXTERMINATION

THE attitude of the American people towards the forests which once covered the greater part of North America was the result of many conflicting forces, none of which were fitted to this continent. Ancient Greece and Rome had experienced economic catastrophe largely because they had cut down the trees which once covered most of Europe: both shipbuilding, charcoal-burning, and the destruction wrought by goats made the classical world a treeless world and eventually a depopulated world. The Gothic kings who broke through the Roman walls and carved out principalities for themselves from the old Empire represented the people of the forest, and they perpetuated their instinct for the trees — a semi-religious attitude which recalled the ancient Druid religion which Roman supplanted — by setting up royal forests, chiefly for their own pleasure in the chase. Strict laws against poaching and dim ancestral hatreds arising from the dispossession of peasantry to make room for these sylvan pleasures bred a resentment against the forests in the breasts of those who later colonized North America — a resentment akin to the sub-human distaste for the time-clock or the eight-fifteen by which many contemporary Americans measure their discontent with the discipline of industrial civilization. In Europe, as wood

became scarce it became progressively more valuable. Hence, when the early colonists found an eternity of woods — dark, uncultivable, harboring red savages and wild beasts — every impulse of history, society, and economics was united in an urge to hack away and burn down the wilderness of trees.

WHAT FORESTS HAVE WE LEFT

We have cut down half of the stand of forests we found here three centuries ago and are exhausting the remainder at a rate which threatens to produce a lumber famine in another century. Even so, our present forest-lands would cover France, Germany, Italy, Norway, Sweden, Belgium, Corsica, Sardinia, Sicily, Great Britain, and Ireland. More to the point, since we cut down our forests indiscriminately, is the fact that one third of our total area is land suitable only for forests. These lands are worthless under cultivation, and short-sighted attempts to settle farmers on the cut-over lands of the Lake States, for example, have produced a crop of bankruptcy and misery for which there was never any economic justification. The exhaustion of our forests continues. Three fourths of the original stand of saw-timber has been cut down, and replacement growths, in spite of all efforts, constitute only a quarter of the remaining supply. In the single year of 1936, as an instance, we used twenty per cent more timber than the annual growth replaced.

BEGINNING OF TREE CONSERVATION

The American people have long been familiar with this condition. In the early nineteen-hundreds when Theodore Roosevelt and Gifford Pinchot focused public attention on

the problem of the forests, their warnings were regarded chiefly as a sound business tip to commercial lumber interests to invest in forest-lands against a rise in the price of timber. National forest areas and state forests were set up, scientific forestry was developed on a laboratory or demonstration scale, but the big lumber operators continued to slash down whole forests without reference to the theories of the experts.

Then, early in 1933, there was a remarkable change in national attitude — due possibly to the disastrous fall in the price of lumber. The Government established the Civilian Conservation Corps — three hundred thousand boys from underprivileged families, stationed in fifteen hundred camps — and set to work at intensive forestation in every part of the country. At the same time, the Forest Service received fresh funds and encouragement, two hundred million acres of additional lands were put into the forest reserves, and the C.C.C. began to make statistics and national history. Here only one figure need be given: in the first eight years of its existence, the C.C.C. planted eight billion trees.

Equally ambitious, equally astronomical, and almost as dramatic was the attempt by the United States Forest Service to make climate as well as history, in the form of the project to plant a 'shelter-belt' of trees — a wind-break a hundred miles wide and a thousand miles long — in the region which lies between the Prairies and the Great Plains. Despite partisan derision, this project (proposed by President Roosevelt in 1934) had advanced so far in six years that over fourteen thousand miles of tree strips had been planted. These strips had already given protection from wind-erosion and drought to over twenty thousand farms, and eventually will benefit about two and a half million acres of farm-land by

conserving moisture, breaking the force of the prevailing winds, and by supplying fuel, fence-posts, and timber to the Prairie farmers.

POPULAR C.C.C.

Without doubt, however, the C.C.C. has won the greatest popularity and acceptance from the public. For eight years an average of three hundred thousand boys and young men have worked to replant the trees of North America, in addition to other conservation tasks. Surveys made by such brilliant and disinterested public servants as the late Ferdinand Silcox, Chief Forester of the United States, and the late Robert Fechner, Director of the Civilian Conservation Corps, indicate that a million men could be justifiably employed for a generation in restoring our forest resources. The economics of the operation justify the investment of money and man-power. Great steps have been made towards the creation of a dynamic national domain, for which hundreds of men have already died. They have died in the rush of flames and the stifling smoke of forest fires. They have died by lightning, by sunstroke, and by snake-bite. They have worked like an army, facing hardships and emergencies, with little glory but with much respect from their fellow-citizens. And they have helped us to rediscover America.

Here is one illustration. Eight years ago a young man in Chicago heard that there might be a job in the South Chicago steel mills. That was during the depth of the financial depression and he needed work, but when he got to the plant he found that the rumor was false. In desperation, he decided to enlist in the newly organized C.C.C. He reckoned that the enlistment was for only six months, and that on his discharge he might get a job in private in-

dustry. The C.C.C. accepted him and sent him out to the cathedral forests of Idaho. Their beauty held him and he enlisted for three successive terms or until he was finally ineligible for further service with the Corps. He returned to Chicago with a vision of an America which is greater than Chicago — a land of high mountains, clear lakes, towering forests, clean winds, strong sun, sweating horses, the smell of pine-needles, and the taste of fresh-caught trout.

And here is another story of a man in Chicago, a man of very great wealth, who wanted his son to have the taste of life in a C.C.C. camp, although the boy could easily have been sent expensively to a Western dude ranch. This man pulled every wire he could in Washington — and he had an important official position — but the Corps would not accept the boy because the C.C.C. is for children of poor families which deeply need the meager pay their sons could send back home for the support of parents and younger brothers and sisters. This Corps has, accordingly, become something which goes to the roots of modern American life. It has graduated over two million young American men, mainly from cities, having shown them the beauty and the grandeur of America as part of a wise national program to restore the forest wealth which our forefathers carelessly destroyed.

CULTIVATING TREES AS A CROP

Some of the figures developed by the Forest Service make for more than statistical interest, since the Service has demonstrated that scientific forestry pays cash dividends. After intensive experiments on a thousand-acre tract in southern Arkansas, for example, it has been proved that selective cutting of trees and scientific management of forest-lands under private ownership is more profitable than the tradi-

tional lumbering practice of 'cut and get out.' In this tract, for the ten-year period beginning in 1938, scientific management assures a profit of thirty-three cents an acre, but by 1968 the profit should be \$1.60 an acre. This increase is because, by cutting trees after they have passed their maximum rate of growth, the small trees are helped to grow more rapidly. This system — of cultivating trees as a crop instead of exhausting them as though they were a mine — offers the prospect that large-scale lumber corporations can operate continuously at an increasing rate of profit.

This is more than a theory: it is an established fact. After studying in the Forest Products Laboratory, operated by the United States Forest Service near Madison, Wisconsin, two young graduates of the University of Wisconsin made it work in Arkansas. They began with an abandoned saw-mill and one hundred and sixty acres of second-growth timber. Using trucks and cutting as few as three or four trees to the acre, they were able to make enough money to buy several thousand acres of good forest-land. They then worked out a system of 'tree-banking,' by which they practiced selective cutting under contract with private landowners in their neighborhood. In one case, a farmer offered to sell them all the timber on his land for \$6.50 an acre. Instead, they persuaded him to let them manage the land for him and at the end of eight years he had already received \$8.50 an acre for his trees, had been paid for his own labor in cutting the logs, and still had plenty of timber left to sell. In another case, a widow with three hundred acres of land got \$350 in two years from her wood-crop, had a better stand of timber than when she began, and was counting on her trees to send her oldest boy through college. Another man has averaged \$200 a year from forest-lands which brought his father only \$150 for all the trees slashed clean years

before. These are only a few examples of the application of practical science to forestry, proving that it is not only a crime against posterity to destroy the forests, but that it is also bad business.

THE VALUE OF THE FOREST

This attitude is the result of a change of national attitude towards the 'limitless' forests which we found when our forefathers first set foot on the continent. Study and experience have shown that certain lands are fit only for the production of trees; reason and emotion have taught us that a treeless civilization is one which lacks many things which make human life pleasant as well as possible. Forests can be used for grazing animals. Forests can be used as game preserves, as parks and recreation areas. Trees retard the flow of rain-water, help soil-formation, conserve fertility, and protect watersheds. On even a small farm the woodlot is not only a useful but a pleasant adjunct. Its trees provide shade in summer, fuel in winter, posts and lumber for many practical uses. Above all, trees are a natural crop on rough or stony land which cannot be plowed, on slopes too steep for efficient cultivation, and on small drainage areas feeding springs and stock-ponds.

Above all, the trees are beautiful, and a civilization without beauty is salt which has lost its savor. Even those who are not conscious of the presence of beauty become restless and confused without it. From the earliest days of human history, from the days of the temple groves and the Druids, men have felt emotionally stirred by trees and by forests. Hence the work which we are doing to restore our forests is something which lies deeper than economics or even than politics. It comes as close to an act of public religion as

anything which this nation has ever consciously performed. For that reason, no doubt exists in the mind of any public man that, cost what it may, we shall complete our program for reforesting America in the two generations which the scientists say are left for the recovery of our national heritage.

CHAPTER III

THE GRASS

LIKE A SEA OF GREEN

THE grass-lands of North America were both a problem and a heritage unlike anything in the history of the European nations which settled and developed this continent. No European country had ever dealt with such a resource, though some — such as the Hungarian and the Tatar — had based a separate nomadic civilization upon the pastures of the plains of southern and eastern Europe. The western Europeans, by contrast, were peasantry, men of the sea and the woods, people who lived by tillage, and there were no legal or customary institutions by which they could deal with so vast a resource. The English villages had their common fields for grazing, but these were small fields — not to be compared with the cow pasture, the old buffalo range, which extended westward from the Mississippi to the Rocky Mountains, from the Canadian Arctic wastes down to the cactus of Sonora. There was enough grass to pasture all the cattle in Europe, and yet the land was settled by people to whom the plow and the fence were the symbols of their culture. This sea of grass was settled after the Civil War, plowed, and blew away in dust in less than fifty years, before we learned how to utilize it.

When Coronado's tiny army marched across the plains of Texas, in search of gold in the sixteenth century, they

struggled through a limitless treasure of forage — the basis for a great pastoral civilization. Their trail led the sweating Spaniards through grass that stood as high as the bellies of their horses, grass like an ocean, grass which could have set marching all the tribesmen between Persia and Mongolia.

This sea of grass reached from the Mexican deserts, over the prairies and the high wind-swept plains, far into the Canadian wilderness. There had never been anything like it in the north temperate zone since Central Asia became a desert. There was no reason why trees should not have grown in these prairies, and today in the 'shelter-belt' there are trees which have grown from seedlings to a height of forty-five feet inside six years. But this soil was light and sandy, with little moisture. It had been buffalo range for countless centuries. The Plains Indians used to burn it off year after year, and the natural stands of timber from which the region might have been seeded lay hundreds of miles away.

AMERICANS MOVE IN

Coronado never found his gold, but the Spaniards, and, after them, the Mexicans, maintained a vigorous cattle civilization on the open range. It was not until after the Civil War that the Americans moved in, with the construction of the Union Pacific and settlement of the West under the Homestead Law. To feed the army of laborers who built the railways, cattle were driven north from Texas and, as the railhead advanced through the Indian country, were shipped east to Omaha and Chicago. Immense grants of Western territory were assigned to homesteads, railroads, and European syndicates. Capital flowed into the grass-lands and for a generation the cattle kings and the cowboys ruled the range.

In the eighties, a series of harsh winters discouraged the cattle industry. In the wake of the bankrupt ranchers, the homesteaders poured in, with their ancestral plows, to cut the sod and turn under the buffalo-grass. By then, much of the value of the range had been destroyed. The railroads had destroyed the unity of the buffalo country and the barbed-wire fences were destroying the unity of the cattle country, as the land passed under private ownership. The Indians protested when they saw the first plow cut through the grass-roots, and it is believed that they had some dim memory of ancestral catastrophe which warned them that the Great Plains must be kept under grass. The tale of the so-called 'Dust-Bowl,' however, has often been told — the story of how the settlers drove their wheat-fields right up to the rim of the Rockies, only to see the land itself whirl away in a nightmare of dust-storms which left a desert in their wake and caused the greatest American migration of the twentieth century.

LESSONS FROM THE DUST-BOWL

This bitter experience — and the social distress of the uprooted refugees from the Dust-Bowl — suggested that there are natural economic limits to cultivation of the land between the Mississippi River and the Great Divide. And in the nineteen-thirties we began to return to grazing the lands which Nature had designed for a pasture. As a wit in the Dakotas remarked, 'We threatened to give the land back to the Indians and they refused to take it.'

These catastrophes — accompanied by spectacular circumstances: trainloads of thirsty cattle being rushed south to pastures, sheep dying by the thousand, hastily butchered beef being canned for the unemployed, townships dependent

for their water-supply on tank-cars — focused national attention on the remaining problems of grazing. Outside of the drought-stricken regions there were signs of the sort of overgrazing which had destroyed the agricultural wealth of the ancient Mediterranean world. Here the fault seemed clearly to lie with the system of private ownership of pasture lands which should have been kept under public ownership and operated as a national utility.

This conclusion implied a revolution in law and custom, since no principle was more deeply rooted in our civilization than that the land belonged in the realm of private property and that public domain was only a stepping-stone towards the distribution of the wealth of the country to its people. Unfortunately for the principle, Nature was in conflict. The monster herds of buffalo had moved without fences or without claims of private ownership. So far as they were an economic resource, the buffalo were the property of all the Indians of the Great Plains, to be taken by those who killed them. The buffalo roved where their instinct directed, far south in winter, deep into Canada in the summer season. Bad years, dry periods, simply restricted the natural rate of increase, without affecting the pasturage of the region, which was, economically speaking, a unit. It was, however, too great a unit for private ownership: the grass-lands had to be managed collectively, either under primitive tribal custom or through the highly integrated collectivism of law-and-order. Otherwise, range which had supported millions of buffalo for thousands of years would become exhausted.

Signs of exhaustion flared like danger signals in the range wars of the West: struggles between cattlemen and sheep herders, struggles between homesteaders and stock-raisers, the war between the lariat and the plow, between the sheriff and the outlaws. As the pressure on the range increased, new

symptoms of distress appeared. The cattle country which formerly had supplied half the world with beef had to depend on protective tariffs and arbitrary 'sanitary embargoes' for a profitable domestic market. The groundwater dwindled and droughts witnessed the massacre of immense herds of cattle for which no fodder could be found. Young sheep became 'mouthers,' their teeth worn down by frantic nibbling at the sand and gravel which held the grass-roots. A plague of goats laid waste the Navajo country. Political discontent mounted as the Western stock-raisers tried to escape from the economic trap.

FIRST STEP TOWARD RESTORATION

In 1934, the first step toward social collectivism on the range was taken through the prosaic medium of an Act of Congress. This thoroughly revolutionary measure was proposed by a thoroughly conservative congressman, Representative Edward T. Taylor, of Colorado, and was known as the Taylor Grazing Act. The general effect of this law is to establish 'home rule' in assigning grazing rights on the national domain, in order to practice soil conservation and to terminate the social and economic chaos of unrestricted grazing. While the C.C.C. and other Government agencies worked feverishly to increase water-supply on the Great Plains — developing springs, digging wells, building reservoirs, checking floods, and otherwise restoring the grass-land to a semblance of its former luxuriance — the stock-raisers, for the first time in their history, applied the principles of social cooperation to their hitherto fiercely competitive industry.

A GREAT EXPERIMENT ON SQUAW BUTTE RANGE

At the same time the problem was approached by the scientific method of experiment, trial and error. In eastern Oregon, at the Squaw Butte Range Station, a so-called 'range man's laboratory' has been set up by stock-raisers, Grazing Service officials, and representatives of the State College of Agriculture. For fifty years the grass-lands of eastern Oregon — famous for the annual Pendleton Round-Up — had been declining until the region faced economic catastrophe. The rich ranges had become worthless sagebrush flats, while tracts held for fall grazing continued to yield rich pasture. So a 16,000-acre section near Burns, Oregon, was selected for experiment, as being typical of some thirty million acres of grazing land in Oregon, California, Idaho, Nevada, and Utah.

Until the Government fenced this land in 1935, the Squaw Butte Range had been developed in the usual haphazard manner of the Old West. From the eighteen-seventies until the First World War, it was used chiefly for horses and cattle; then it was used for sheep for the next twenty years. Some of it was dry-farmed and abandoned. Other parts were assigned to grazing homesteads — which also failed. What was left in a region naturally rich in forage was a spreading waste of sagebrush and juniper. The first step in the experiment was to establish a stockmen's committee to serve without pay in an advisory capacity and to pass on all projects undertaken by the federal officials. This committee is the legal authority for the project and all grazing problems are dealt with at their collective request. And this has happened after decades of cattle wars, rustlers, outlaws, and all the gaudy paraphernalia of the cowboys-and-Indians six-shooter civilization of the Old West!

The cooperative committee has divided Squaw Butte into

seven 2100-acre pastures, four of which are being used in rotation for a comparison between deferred grazing and season-long grazing. On each of the season-long plots, between twenty-five and thirty cattle are pastured; between seventy-five and a hundred cattle on the rotation pastures. Monthly cattle weights and seasonal surveys of forage record the comparative results of the two methods, judging both the cattle and the grass. Solution of the problem will make possible the maintenance of a permanent herd of half a million cattle on the least valuable grass-lands of the West. At the same time, while the range is being studied, efforts are being made to find a breed which will thrive on the arid ranges of the Mountain States. Other Government services — including Soil Conservation, the C.C.C., and the Biological Survey — are cooperating on the project. (This is also a revolution, in that it involves practical field cooperation between the Department of the Interior and the Department of Agriculture, whose bureaucratic feuds recall the bitterest struggles of the sheep- and cattlemen, not to mention Billy the Kid and the Law.)

But the point of the Squaw Butte experiment is that it is not a Government enterprise. The whole project is run for and by practical stockmen and has become one of the major interests of the cattle-raisers of the Far West, much as T.V.A. has become a major interest for economic reform in the East, both as a yardstick and a solution. For it may solve the old fierce issue of cattle versus sheep, for which so many men have died with their boots on west of the water-tower, and it may point the way to a stable and profitable pastoral economy for the whole Western range country.¹

¹ Evidence of the present economic chaos in this region is the practice of Oregon sheepmen who freight their flocks by rail into Montana Indian Reservation lands for summer grazing and then back to Oregon for the fall and winter — an expensive gamble that is evidence of economic desperation in the struggle for pasture.

SCIENCE COMES TO THE FRONTIER

The outcome of this and similar experiments throughout the grass-lands of the Great West suggests that perhaps the Indians were much wiser than were we in the use of the Western ranges. Grant that much of the West has passed irrevocably under private ownership and that private ownership of cattle is desirable in order to improve the breed and the yield, we are moving back to the old concept that one man's meat is everybody's meat, and that one man's poison is everybody's poison. Once we have evolved the breeds and the grazing practices best fitted for an enduring cattle and sheep industry in the old buffalo range, it will be simple to apply scientific collectivism to what was the last stand of the individualist — the old frontier, where the revolver was the law and the rule of first-come-first-served inspired three generations of American tradition.

It is not fanciful to imagine that we may restore scientifically the same practices which the Indians of the buffalo country had developed by instinct, with vast herds of sheep and cattle operated by a single pool of livestock interests, using the public domain for grazing, without any issue of private ownership, taxes, or fences standing between the American people and their heritage of grass. One thing is certain: old-style American individualism cannot work on the Great Plains. That in itself is a revolution as potent as the revolution heralded by the Colt revolver, the barbed-wire fence, and the tin can which launched our great adventure westward beyond the hundredth meridian. And if the human race still demands the cowboys-and-Indians theme for its entertainment, there are other dramas closer to daily life which are already replacing this dream-world of the lariat and the branding-iron, the chuck-wagon and the rodeo.

For the West is going back under the grass, and in another generation — God and Hitler willing — we may have repaired the worst consequences of having tried to cultivate a million square miles of grass-lands as though this tremendous pastoral empire were part of an English parish or a French domain. Perhaps, west of the hundredth meridian, where the American people met their first major economic defeat, we may redesign a civilization which will remake the world with the same swift ruthlessness as that which originally conquered the old frontier.

CHAPTER IV

WILD LIFE

NO LANDLORDS AND FREE POACHING FOR ALL

NEXT only to the forests in economic importance to the early generations of settlers in North America were the wild-life resources of this continent. Great fortunes like the Astors' were founded on the fur trade alone: the furs of the Pacific Northwest financed the early China trade; and for the mass of Americans game was a vitally important article of diet: trout, pigeon, duck, deer, and bison made the difference between starvation and abundance all along the old frontier.

The game seemed to be inexhaustible. Passenger-pigeons darkened the skies of Kentucky. Clouds of geese and duck moved over the Lake region and along the southeastern coasts. Early travelers on the Union Pacific used to amuse themselves by shooting the buffalo as the train puffed its way westward towards the Rockies. On these supplies of game, the Indians had subsisted for thousands of years, the dark forests and broad prairies of the New World their common cattle-pasture and chicken-yard. The untamed animals roved unchecked over an unfenced 'farm' as big as North America, and the culture of the Red Men was essentially based on the skill required to live on the game and fish, supplemented by a little maize and rough agriculture.

For over a hundred years, Frenchmen and Englishmen fought each other for the fisheries and the fur trade. The

frontier was opened by the trappers and voyageurs. As recently as 1935, officials of the Department of Agriculture discovered families in the Southern highlands living on land which had never known the plow, where generations of Americans had been chiefly nourished by the local supply of game.

What had been the general rule of two hundred and fifty years, however, had become exceptional. The destruction of the forests had been accompanied by the disappearance of the game. As the axe and plowshare drove back the forests, they also destroyed the shelter, the berries, and the natural balance which had supported myriads of wild creatures. So vanished almost overnight the clouds of passenger-pigeons. It was not so much the wanton slaughter of the buffalo by hunters which destroyed the great herds which ranged the Great Plains as it was the railway lines, the barbed-wire fences, and the plowing-up of the prairies that drove the American bison back into a huddled remnant in the northern foothills of the Rockies. Streams were not so much over-fished as they were poisoned by coal and waste and sewage of industrial cities. The deliberate extermination of certain predatory creatures upset the biological balance of Nature. The draining of swamps and marshes destroyed both the breeding-grounds and the food-supply of ducks and geese. The wild life dwindled and one of the greatest natural resources of the continent almost disappeared.

As with many other human affairs, it was not until the game seemed to be disappearing that its importance was appreciated. The result was a great psychological and sentimental shift in our public attitudes which first manifested itself in an emotional revolution. To the American of 1800, the man who killed a bear was a hero. To the American of 1900, the bear was quite as apt to be the hero. The early

generations of Americans had frankly regarded game as common property, and there was no Society for the Prevention of Cruelty to Animals to stand between a pioneer and his meat, no game regulations, no hunting licenses. As a matter of fact, one of the human grievances of the early colonists had been directed against that part of the Old-World feudal system which conferred property rights over game upon the landlords. Many of the settlers were animated with fierce resentment against the laws which punished 'poaching,' and the first great change in human customs in the New World came with the realization that in America there were no landlords who owned the game. Here and there, this attitude still persists in the form of a lusty ignoring of 'No Trespassing' signs and a complete acceptance of hunting and fishing for food or recreation, without reference to landownership.

WILD LIFE AND AMERICAN PLEASURE

The early Western exploits of Theodore Roosevelt and his later well-publicized big-game expeditions did much to focus national attention on sentimental aspects of wild life and paved the way for the present tendency to 'bring 'em back alive.' More important were the writings of Ernest Seton-Thompson and the cult of 'nature-faking' which developed in the first decade of the twentieth century. Naturalists like Audubon and philosophers like Thoreau had long since served to arouse general interest in the non-human aspects of America. Some of this interest is, of course, as old as Aesop's Fables, but the growing vogue for 'dog stories' was evidence of an altering attitude towards the wilderness. A widespread vacation impulse developed in the United States — a general custom, among those who could afford

the money and leisure, of going camping. As vacations became more the rule and less the exception, the impulse of social snobbery and individual gratification perpetuated among large numbers of Americans the idea of killing for sport instead of killing for food. As social pressure and uneconomic leisure increased, there came a multiplication of private game preserves and shooting clubs, fishing clubs, camping clubs, hiking clubs, dude ranches, etc. At the same time there was increasing pressure on the Federal Government to prevent the extinction of certain species of wild life.

SOME EXAMPLES OF SUCCESSFUL INTERNATIONAL ACTION

For example, during the early nineteen-hundreds, it became apparent that the migratory waterfowl of North America could not long withstand the unregulated hunting habits of the American people, combined with the drainage of swamps. Since these birds were migratory, they could not be protected by state legislation alone. This condition led, in 1913, to the Migratory Bird Treaty between the United States and Canada, and to congressional legislation to enforce the provisions. This treaty action was parallel to the agreement of 1911, between the United States, Russia, Japan, and Great Britain, providing international protection for the fur seals of the North Pacific Ocean.

FISH AND WILDLIFE SERVICE

The roots of this official attitude went back as far as 1885, when the Bureau of Biological Survey was set up in the Department of Agriculture. This bureau was originally required to study the habits, needs, and utilization of our wild

animals, birds, reptiles, and amphibians, and to make its findings public. Fifteen years later, a law was passed directing the bureau to protect game, and since then its functions have slowly expanded until it is charged with the duty of preserving, restoring, and developing the wild life of the fields and forests of the United States. It administers migratory bird treaties with Canada and Mexico, and sets up game refuges, in cooperation with the states, under the Federal Aid to Wild Life Restoration Act of 1937. Merely with respect to waterfowl this Bureau has authority over 3,500,000 acres of aquatic habitat — all of it acquired since 1929 — or nearly half the area needed to place this variety of game on a secure basis.

Somewhat similar to this is the Bureau of Fisheries of the Department of Commerce.¹ The vast supplies of fish off the coasts of North America attracted fishing vessels from five European nations a hundred years before the first permanent white settlement was established on this continent. Fish and shellfish formed an indispensable food-supply for the early settlers, and the runs of shad and salmon on the coastal rivers excited the amazement of the early colonists. More than fifty years ago, however, it appeared that the supply of fish was not as inexhaustible as had been supposed. Unmistakable signs of a dwindling supply led Congress in 1871 to establish the United States Fish Commission as an independent agency to determine why and to what extent the fisheries were diminishing, and to suggest protective measures.

Although the original duties of this bureau were those of a mere fact-finding agency, it soon undertook the large-scale

¹ Since June 30, 1940, the Bureau of Fisheries and the Bureau of Biological Survey have been administered by the Department of the Interior as a single unit — the Fish and Wildlife Service.

propagation of food and game fishes in order to give effect to some of its recommendations. In 1903, it was directed to regulate and protect the salmon and other fisheries of Alaska, and has steadily extended its activities until today it operates one hundred and eight fish hatcheries, producing more than eight billion fish and eggs each year. Outside of Alaska the bureau is an advisory agency, but its work in Alaska serves as a yardstick for what positive regulation can accomplish. There it has built up and maintained the runs of Alaska salmon at profitable levels of abundance, and also protects and administers the fur-seal herd on the Pribilof Islands — the largest in the world. When the bureau took control of this herd under the treaty of 1911, it contained fewer than 200,000 seals; today it numbers more than 1,800,000 animals. The bureau also helps the Treasury to enforce the International Whaling Treaty Act.

WILD-LIFE POPULATION INCREASE

Under these and similar Government controls, the threatened supply of fish and game is expanding. In the Rocky Mountain States, for example, several large herds of buffalo have been restored, and today you can buy a buffalo from the Government for barbecue, right off the range, if you will pay the freight and other charges. Pheasants, duck, and grouse are multiplying; deer and elk, if anything, are becoming too plentiful. In the wild country around the headwaters of the Flathead River in Montana, elk herds have become a problem, and in 1940, the federal authorities asked hunters to kill off three thousand elk. Each year, millions of fingerlings are planted in national parks, in high mountain lakes, and in streams under the control of the Office of Indian Affairs.

In Pennsylvania — one of the longest-settled states in the Union — wild deer are once more abundant and motorists have to be careful in driving at night lest they hit and kill some of these wild animals. Beaver, scarce in the East for over a century, are returning to New Jersey and Connecticut. Some 275 wild-life refuges have been established by the Government, covering nearly 14,000,000 acres — nearly 8,000,000 acres of which has been purchased since 1933. Wild life is also protected in the 175,000,000 acres of national forests, in the 21,000,000 acres of national parks and in the many state parks.¹ Strict fish and game laws are becoming more and more an important part of state government, while state fish and game commissions are likewise becoming politically important spheres of state administration. The Federal Government itself collects a stamp tax from duck-hunters and, in general, the public has cooperated with the authorities in an effort to preserve and increase the supply of game.

Parallel with this effort, there has been a concerted drive to restore the conditions under which fish can thrive. By sealing abandoned coal-mines the Work Projects Administration has prevented the pollution of streams. The Public Works Administration has built sewage-disposal plants to keep the rivers clean. The Civilian Conservation Corps has made thousands of fish-rearing ponds and has stocked them with 800,000,000 fish. At Bonneville Dam, elaborate 'fish-ladders' and aquatic elevators make it possible for the salmon which breed in the upper Columbia River to pass the barrier, while upstream the Fish and Wildlife Service is 're-educating' the salmon by catching them and transferring

¹ A total of 750,000,000 acres — over forty per cent of the total in the United States — is now formally in the national domain and is hence available for game refuges and other measures for the conservation of wild life.

the spawn to the headwaters of other rivers, not blocked by Grand Coulee.

THE ALL-ROUND FOREST

Indicative of the imagination and knowledge with which the problem is being attacked is the development of a 'multi-use' forest by the United States Forest Service. In this, forests are planned and planted for several deliberate purposes: to protect watersheds, to provide a constant supply of lumber through selective cutting, to maintain recreation and camp facilities for the general public, and to stock the woods with shrubs and berries which will support abundant supplies of small game. Instead of a crude effort to restore the country to the conditions of Nature, this is a deliberate effort to develop the type of forest which will serve the exact purposes which civilized society most needs and most appreciates.

Behind all this lies the impulse to preserve the element of beauty in Nature: the cool green of the woods themselves — the trees and mosses, the undergrowth and the patches of fern and thin forest-grass; the chickadees and the song-sparrows, the chipmunks and the squirrels, even the occasional whiff of a solitary skunk; the woodchucks and the foxes, hawks sailing overhead or a screech-owl hooting above the silvery birches in the moonlight. Such things as these — combined perhaps with the smell of wood smoke, the hiss of trout in a frying-pan, and the steady chuckle of a small brook — can calm and heal the fevered spirits of men and help restore that sylvan paradise which we did not miss until we had almost lost it forever.

The America that wanted no landlords, and prided itself on unrestricted poaching of game which no man owned,

has begun to make itself its own landlord and to preserve the wild life lest there should be none left to poach. In this, the most anarchic field of social and economic life — for who owns a fox and who can possess the wild geese flying their wedges north to the Arctic? — we have come full circle back to the ancient discipline from which our forefathers believed they had forever escaped.

CHAPTER V

THE SOIL

HOW THE LANDLESS TREATED THE LAND

THE people who originally settled the eastern shores of the United States brought with them an attitude towards the land which was to work havoc with its fertility. Too little attention has been centered on the causes of this attitude.

The English colonists were not peasants. They were middle-class tradesmen, upper-class adventurers, desperate proletarians. The great English land-grabs under the Tudors — the enclosure of the commons, the seizure of the lands belonging to the Catholic Church, the growth of the wool industry — had blasted the English peasantry nearly a hundred years before Jamestown and Plymouth Rock. The rise of Puritanism and other forms of dissent from the Established Church of England was, in some ways, an expression of economic and social discontent, which had been rendered more bitter by the growth of official monopolies in England. The result was the appearance of a large landless class in England, whose attitude towards the lands of the New World was primarily emotional, often frankly commercial, and utterly naturally political.

As subsequent experience showed, where the land was cultivated by real peasants — as with the so-called Pennsylvania Dutch, early immigrants from the German Palatinate — a sound and enduring agriculture was established.

This lesson was emphasized by the example of the Mormons, who made farming pay in the God-forsaken deserts of Utah, under the impulse of a religion which emphasized social cooperation. It is also a matter of experience that the success of the Mormons and other cooperative groups excited the jealousy and enmity of their individualistic neighbors and militated against sound husbandry.

The problem of the soil was, of course, not only a matter of social attitudes or individualistic principles. In large part it was due to the character of the North American Continent itself, which differed from western Europe in more than size.

Yet this impression of unlimited quantity of soil influenced the settler first and most. The land of the Old World was limited, and even with improved agricultural methods was unable to support the growing population of the European countries. So the limitless Americas burst upon the consciousness of the Old World with much the same effect as the discovery of a fourth dimension in economics, a legal device by which any man could create money, or, as Columbus announced, pick up gold from the tree-roots. Land had been wealth in the Old World so long that the billions of virgin acres in the New World fostered the ancient peasant dream of a civilization in which every man could be a landlord. So, too, the French philosophers of the eighteenth century and their American disciple, Thomas Jefferson, succumbed to the sentimental notion that free and sufficient land would of itself create a free and self-sufficient society.

DANGER IN APPLYING EUROPEAN METHODS

The American people ignored the vast differences of geography and climate between Europe and the New Atlantis. Europe's landlordism rested upon the foundation

of centuries of experience; American efforts to democratize feudalism in terms of individual landownership was applied to a continent where everything was on such a grand scale that the lessons of the past were a positive danger unless applied with scientific insight and imagination. To raise potatoes beneath the gentle rains of Ireland was one thing; to cultivate corn on the banks of the Wabash was another. To raise wheat in the valley of the Thames was quite different from raising cotton in Georgia, tobacco in Virginia, or sugarcane in Louisiana. The sweep of geography, the range of climate, the character of the land itself, were without parallels in European experience. And above all, the bulk of the colonists were not peasants, used to complete dependence upon the soil, and were in the grip of political passions concerning the use of the soil itself.

So the soil wasted. In recent years, over three billion tons of top-soil a year have been blown away by winds or washed into the sea by the rains in the basin of the Mississippi. Not only is the soil being lost, but its fertility is being slowly drained away even on lands which are anchored against direct erosion. The basic wealth of the United States — the capacity of the land to grow crops — is wasting and has wasted to an extent which undermines the entire premise of American civilization. Every Government survey for two generations has been brought up against this inescapable fact, that a great man-made desert is possible in the Valley of the Mississippi within a predictable period, that America can look forward to less than fifty years of virile national existence unless this situation is remedied by bold measures.

CHECK-UP ON THE RESULTS OF WASTEFUL SOIL TREATMENT

After three hundred years of waste, rhetoric, sentimentality, protest, and politics, action finally came. The Federal Government made a survey of what had actually happened to the two billion acres of land which constituted our national heritage. In the cold, impersonal, cautious findings of an official report, the following facts were established:

On 37 per cent — 700,500,000 acres — of the total land area, mostly flat, gently modulated or forested, erosion had been slight; less than one fourth of the surface soil had been lost.

On 42 per cent — 775,600,000 acres — erosion had been moderate; one fourth to three fourths of the original top-soil had been lost.

On 12 per cent — 225,000,000 acres — erosion had been severe; over three fourths of the original fertile soil had been lost.

On 3 per cent — 57,200,000 acres — the land had been destroyed for tillage.

About $7\frac{1}{2}$ per cent — 144,700,000 acres — consisted of mesas, canyons, scab-lands, bad-lands, and rough mountain land inherently unfit for cultivation.

Three years later — in 1937 — another Government survey was made of the farm-lands. This report informed the nation that its agricultural resources were seriously menaced by erosion:

The actual area of crop-land was about 415,000,000 acres, of which 253,000,000 acres were either subject to serious erosion or of such poor quality as not to give farmers a satisfactory income at the price-levels prevailing since 1919. To continue to cultivate such land is to mine it of its remain-

ing fertility and to destroy it. Over half of this area was in need of soil-conservation practices to preserve its fundamental fertility. Only 161,000,000 acres could be safely cultivated under prevailing practices or should be cultivated under actual price-levels. In other words, our original two billion acres of 'limitless' lands had dwindled to less than one tenth of that area fit for economic cultivation.

The effect of trying to use our lands too hard was also reflected in the steady growth of farm tenancy as a problem in a land devoted, in principle, to family-sized farms and individual homesteads. Government surveys of the tenancy situation revealed that it had grown with great rapidity, the number of tenant-operated farms having increased from 1,024,601 in 1880 to 2,865,155 in 1935 — or from 25.6 to 42.1 per cent of all farms in the United States. It was shown that tenant farms ordinarily have a large proportion of land in soil-depleting cash crops and a smaller proportion in soil-conserving crops than do owner-operated farms. It was concluded that with tenant farmers here this year and gone the next, the system resulted in no conservation and no practical interest in efficient land-use on the part of either owner or tenant.

These figures are the records of a stricken continent and an inept economic system. They are the fever-chart of an attempt to apply individual ownership to a problem of social collectivism. They can no more be ignored by prudent statesmanship than a clinical thermometer reading of 105 degrees can be ignored by a prudent physician. In their record of dying lands and impoverished people, economic distress and social rootlessness, they demand action. And it is a fact that the American people are at last in action, doing something to save the land, to save the people who farm the land, and to save the nation whose future depends on the

wise use of the soil resources of North America. Here is the ultimate battle-front on which is being decided the question of whether this continent can support a stable agricultural civilization, or whether we are to go the way of Carthage, Mesopotamia, and China, as just another race which crippled itself by its failure to understand and use its own environment.

HOW THE GOVERNMENT SEEKS TO REPAIR THE MISTAKES OF A HUNDRED YEARS

It was not until 1935 that the Soil Conservation Service was established under the Department of Agriculture, and that benefit payments were made to individual farmers for cooperating in the defense of the soil of the United States. In other words, over three hundred years after the first settlements elapsed before the people of the New World attempted a serious review of the methods by which they proposed to support life on this continent.

So far, only a beginning has been made. Specialists of the Soil Conservation Service have gone with individual farmers over their land, from field to field, from woodlot to pasture, and have worked out practical plans for applying the best-known methods of rainfall conservation and erosion control to their different kinds of land.

Out on the ground it is comparatively easy to explain to a farmer why, for example, a fence that runs up and down a slope should be relocated so that his land can be plowed with the contour, terraces built, strip-cropping applied. In this way, whole farms have been so treated. Control measures are used so that one farm supports another, fields and farms are handled so that what is done in one field or on one farm benefits a neighboring field or farm.

An example of the results of this type of conservation, achieved by a combination of scientific supervision and local cooperation, is found near Temple, Texas. There, some six hundred farms in the Elm Creek watershed have been treated for erosion control. This is in the 'Black Belt' of central Texas, an area which used to be one of the chief cotton-growing regions in the world. Until a few years ago, the farmers were one-crop, cash-crop-minded, planting cotton right up to their own doorsteps. Few of them had vegetable gardens, a hog, or even a chicken. Soil erosion had become serious and many cotton-fields had been ruined by the rains which had washed away from five to twenty inches of topsoil.

Under the direction of the Soil Conservation Service, these once-productive fields were given intensive treatment: terracing, contour cultivation, strip-cropping, gully control, pasture improvement. In one portion of this Texas valley, one hundred and seventy-four adjoining farms — some thirty-four thousand acres of land — were treated in a solid block. Erosion-control practices were installed for every acre of field and pasture; every gully was stabilized, including those along roadsides; land too steep for cultivation was planted in a protective cover of grass or plants valuable to wild life. The work was done without regard for farm boundaries or even county boundaries. Although the watershed includes parts of three separate counties, the local farmers realized that Nature had no respect for any artificial frontiers, and they established control measures extending in an unbroken pattern across the legal limits of two, three, or even six farms at a time.

In this particular locality, erosion has been brought under control and local floods have been moderated. Yields of cotton and corn have been increased and cash income from

farms in the project area is higher than that from similar farms in the same region which have not yet been treated for soil conservation.

In general, the story is pretty much the same in the hundreds of demonstration areas and in the soil conservation districts which have been organized by farmers under various state laws. On almost all the farms that have been fully treated, erosion has been sharply reduced, and on many it has been brought under complete control. Yet in five years' time, only 120,000 out of the nation's 7,000,000 farms have been given the benefit of this treatment, only 30,000,000 acres out of more than a billion acres in farm-land. It is a labor for at least two generations, and we have been at it less than six years.

Much of this work is being done through soil conservation districts, which are now established in all but six of the forty-eight states.¹ Upon local request, the Federal Soil Conservation Service goes into one of these districts, helps make preliminary surveys, and assigns a technical staff to help the local farmers in developing and carrying out soil-conservation plans. In addition, the Service lends equipment and provides seed and seedlings for control plantings, and sometimes furnishes C.C.C. labor to help get the work started. So, by December 1, 1940, S.C.S. technicians were stationed in 274 districts, with a total of 165,000,000 acres, and had made 2200 individual farm plans and started work on about 4,500,000 acres in the previous twelve months.

¹ The six states which do not have laws providing for soil conservation districts are: Missouri, Delaware, New Hampshire, Connecticut, Rhode Island, and Massachusetts.

A SYSTEM OF CASH REWARDS FOR CONSERVATION

This program marks a real revolution, as distinguished from the political upheavals generally associated with that sanguinary word. It is a democratic counterpart of the Soviet Five-Year Plan and the managed munitions economy of the Third Reich. For the first time in American history the bulk of American farmers are volunteering to cooperate along the line of national as well as local and individual interest. And this has been achieved without secret police, concentration camps, or propaganda, by the ancient legal device known as the contract. In return for certain cash benefits, individual farmers agree to cooperate in sound conservation practices. If one farmer refuses to cooperate, there is no penalty other than the obvious refusal of the Government to pay him the benefits which are available to his more enterprising neighbors.

More important is the fact that this agrarian revolution has been launched without economic dogma or social ideology. To enlist cooperation it was not necessary to deify the tractor, romanticize collectivism, decree a peasant status for the landowners, or build up an omnipotent Party or Leader. Cooperation is planned action — whether it be crop control, crop insurance, soil conservation, or land use — without reference to whether the cooperating farmers voted for Roosevelt or Landon, whether they are Methodists or Baptists, whether they are for or against Karl Marx.

What this sort of revolution may mean in terms of human futures — hope, work, lives, and happiness — is incalculable. Among other things, it should mean that men and women need not break their hearts or exhaust their strength in tilling worthless land. It should mean that fewer farmers will grow more food on less soil, thus permitting a better

status for agriculture and a wiser use of our land resources. It means that America is nationalizing farming, without nationalizing the farmers.

What is happening is more than a revolution of methods; it is a revolution of national attitudes. Under the stabilized agriculture of the Old World, other things being equal, the bad farmer lost or left his land, while the good farmer remained and prospered. Over here the bad farmer ruined his land and at the same time injured that of his thrifty neighbors. Or again, good and bad farmers alike had their land leave them — through flood or dust-storm or gullying. It took a generation of acute economic and social depression to persuade the American farmers to unlearn their past and to work with their neighbors for their mutual welfare and the common good of the whole nation.

Thus in little more than a hundred years, Jefferson's dream that every American could be the master of his own land and thus the master of his political destiny has swung around full circle to a practical collectivism in which all the millions of American farmers work together, plan together, rise and fall together on the basis of their common heritage in the soil of the United States.

Uncontrolled individualism and national planlessness — here is the real danger to America — that the land on which we live may lose its fertility and with its fertility may lose its power to support life itself. And without life, it is superfluous to add, there would be no America to defend.

CHAPTER VI

THE FARMERS

DESPERATION

IN THE summer of 1930 occurred one of those minor incidents which, like a flash of lightning, illuminates a wide area and is followed by a rumble of thunder to give warning of a coming storm.

The farmers of England, Arkansas, distressed by a long drought and hard hit by the fall in farm prices, entered the town and looted the food-stores. This direct action by a social group which was traditionally law-abiding was followed by prompt federal drought relief by the Hoover Administration: loans to save cattle and crops, but not to relieve human misery. It was the precursor of a wave of agrarian violence without precedent since the days of Shays's Rebellion in Massachusetts, in the seventeen-eighties. There were farm strikes, milk strikes, penny auctions, foreclosure riots, defiance of judges and sheriffs, and a wave of farm lawlessness which once and for all destroyed the picture of the American farmer as the stable and calming influence in national affairs.

By the early nineteen-thirties, it was obvious that there had been a revolutionary change in the pattern of American agriculture. The battles which preceded and won the Civil War had been fought on the issue of free soil versus slavery. Sixty years after the political and military victory

which had dedicated the American people to a social and economic system based on freedom for agriculture, the land and the people who worked on the land were in the grip of the consequences of grave national mistakes and of faulty social philosophies. Debt and taxes, mortgages and tenancy, insecurity of tenure, dwindling income and opportunity, were the symptoms of a land policy which was destroying the people who lived upon the land and upon whom the nation depended for its supply of foods and fibers. The theory of government and business which had produced such results was thrown under a cloud and the nation was faced with the necessity for complete reversal of practices as old as the settlement of America.

WHAT WAS WRONG WITH INDIVIDUALISM

As we came to grips with these urgent problems, it became increasingly clear that the fault lay not in America but in ourselves. The attempt to apply Old-World social patterns, wasteful economic practices, and short-sighted commercial motives was responsible for most of the difficulties of our agriculture. The facts did not justify our pride in being 'practical' and unbound by theories. Our entire inherited system of law and land tenure was a doctrinaire Gibraltar, an impregnable fortress against any attempt legally to prevent a man from abusing his land and thus injuring his neighbors and robbing posterity. Another theory which enslaved our thought was that which measured economic adequacy by monetary income. Thus a man or a corporation which butchered a forest or skinned a province could command a large immediate cash reward. The easy money thus amassed could purchase public opinion, hire judges, order legislation, and control government. Thus the very

process which destroyed our land fed upon itself and the people were bribed with their own wealth to agree to its further destruction. Yet another theory which impeded clear-sighted realism was the moral judgment that, since God had decreed that the righteous should prosper, those who were poor or unsuccessful were morally delinquent. And finally, of course, in wide sections of America, farm labor was associated with slavery and there was a profound social problem arising from the mixture of economics and race relations. So long, however, as these theories seemed to work to the immediate advantage of the mass of our people there was no urgent demand for change.

As this system of social philosophy and economic custom began to exhaust the natural wealth of the United States, it generated an increasing burden of human misery which was reflected in ignorance, disease, and moral deterioration. And as the profits dwindled, there was no longer any substantial set of political or business interests which could be arrayed against a new approach to the entire system of farming.

RESETTLEMENT STRIKES AT THE ROOT OF THE PROBLEM

This led to the creation of the Resettlement Administration — later renamed the Farm Security Administration — in the spring of 1935, under the leadership of a highly intelligent and far-sighted man, Undersecretary of Agriculture Rexford G. Tugwell. This national program for rural resettlement, land use, and rural rehousing offered the first conscious effort to readapt the American farmers to their land. After Tugwell's resignation his work was continued as a long-range program for rehabilitating poor farmers and

Southern tenants, under the direction of another far-sighted administrator, Doctor Will Alexander, who supervised the development of a permanent farm revolution based on better diet, improved medical facilities, education, and cooperation.

This Farm Security program struck at the roots of the cruel social theory that certain people were poor because they were 'no-good' and that 'no-good' people deserved to remain poor. Rehabilitation projects were started in every state, and individual farm plans were worked out for thousands of farmers who had been condemned to poverty in the belief that they were inherently thriftless, incompetent, or without positive value to the nation. The truth was swiftly established, that the rejected farmers — the 'dregs' of our rural proletariat — were really held down by bad farming practices, poor land, inadequate social and business institutions. The example of the Laforge Farms, in the 'bootheel' of southeastern Missouri, illustrates the scientific accuracy of this statement.

THE LAFORGE EXPERIMENT

This tract is typical of the delta lands of the Upper Mississippi, a land of big plantations, rich land, and poor farmers. The soil ranks as one of the most fertile in the world: a rich, deep, level silt deposited by the flood waters of the Great River during the course of centuries. But the people who work the soil are mostly share-croppers or day-laborers with one of the lowest standards of living in America. The Delta plantations are essentially big outdoor factories which are devoted to one cash crop: usually cotton, sometimes corn or wheat. In 1935, half the farms in this region did not have a vegetable garden or a milk cow, not one in forty had an orchard. Instead, cash crops were cultivated right to the

doorsills and food — chiefly corn meal and fat pork — was bought on credit at the plantation store.

The result was inadequate diet, poor health, debt and insecurity, while intensive one-crop cultivation rapidly wasted the land's fertility. Landlessness and restlessness went hand-in-hand, as tenants and share-croppers tried to escape from their economic trap by switching from plantation to plantation. Public education was neglected. The few big land-owners who had made money found their profits dwindling as the land gave out. Poverty and shiftlessness seemed to be the natural destiny of most of the people, white as well as black, who made their meager living from the richest soil in North America.

In 1937, the Farm Security Administration bought sixty-seven hundred acres near Laforge, in New Madrid County, Missouri, on which lived a hundred families of typical share-croppers — sixty of them white, the rest negroes. These people were housed in flimsy, unpainted shacks, many of them one-room dwellings, without sanitation. At the time of the F.S.A. purchase, all the possessions of the average family on this tract — clothes, furniture, tools, livestock, and food — amounted to only twenty-eight dollars in value. Few of them had any education beyond the primary grades, some could not read or write; they had come to southeastern Missouri from all over the South, lured by reports of good cotton land, and had since been unable to leave.

The Government proceeded to reorganize the plantation on a scale which was unprecedented. Decent houses were built for all the families, at an average cost of eleven hundred dollars each, by applying the principles of mass production to simple housing. These dwellings had porches screened against flies and malarial mosquitoes, they were weather-proofed and equipped with cookstoves and other conven-

iences unheard of among farmers of the Delta. There were good barns, sealed wells, stout fences, food-storage cellars, and a sanitary privy on each plot of land. Much of the work on this phase of the Laforge project was done by the share-croppers themselves, who were paid fair wages for their labor. The total cost of the average farm — including land and buildings and fences — came to a bit over fifty-three hundred dollars, a larger indebtedness than any Delta tenant had ever been trusted to assume.

The next step was to improve the croppers' diet by digging vegetable gardens on each farm, with provision for raising pigs and chickens by those who wished to do so. The land itself was taken out of one-crop cultivation and was placed under a three-year rotation of cotton, corn, and forage crops or soybeans. Each family also got a loan with which to buy a team of mules, a milk cow, fifty chickens, a sow and two shoats for fall butchering. For the first time in the history of the Delta, the farmers were growing their own food and guarding the fertility of their land. By the end of the second year of the project, the Laforge women had canned more than fifty thousand quarts of vegetables for the winter, while by cooperative purchasing each family got the use of good heavy farm equipment at about one fourth of the usual cost when each farmer would have to buy it for his own use. This was practical 'collectivism.'

This agricultural cooperation went much farther. The farmers borrowed money from the Government to purchase a large cotton gin, with warehouses, cottonseed houses, store and office buildings, a blacksmith shop, a manager's residence, a large barn, and a pure-bred sire service for the livestock. Here the community preserved the economic features of the old plantation — centralized management, service, and facilities — but under terms which made the

'boss-man' the agent rather than the master of the farmers. This particular cooperative promoted the planting of one variety of high-grade cottonseed, which gave the growers a premium of between \$1.50 and \$5 a bale. All this centralized equipment was rented from the Government on a basis which repays the financial costs to the Federal Treasury, and by 1940 the cooperative was actually a year ahead on repayments. Education, group medical care, and other amenities of civilized existence were also provided for both children and adults.

DID THE LAFORGE INVESTMENT PAY

So far, it could be claimed merely that the Federal Government, by expending large sums of money, had improved the living conditions of a small group of its citizens. Even the fact that the gross worth of the average family on the Laforge farms had increased from \$28 to over \$1400 in the two years could be met with the assertion that this was a natural result of the lavish federal investment. For this reason, it is important to examine the whole balance-sheet on this experiment in rural resettlement.

The Government has invested a total of \$786,443 on this particular project for one hundred Missouri share-cropper families — about \$600,000 for land and buildings, a bit over \$50,000 to the Cooperative Association, and the balance for operating loans to the families. This means that the average family on this project has incurred a debt of nearly \$8000 — a tremendous risk considering the 'no-good' character attributed to this type of poor and 'improvident' farmer.

In the course of two years, the Government has been repaid a total of \$94,455.09 — or about six and a half per cent

a year on its investment. With the cost of money to the Government ranging between two and three per cent a year, this rate of repayment makes it possible to retire the entire loan in about thirty years. In other words, the venture is good business for any agency which can command low interest rates and can afford to wait for its money.

From the national point of view, the evidence of individual and family rehabilitation is equally important. Two years after the project began, the average Laforge family held surplus cash, over and above all operating expenses, amounting to \$377.71. In addition to this sizable sum, the Laforge families owned the following useful wealth: 635 tons of hay; 22,118 bushels of corn; 15,203 pounds of lespedeza seed; 100 tons of certified cottonseed; 1856 head of swine; 226 head of cattle; 215 mules and horses; 100 complete sets of farming tools; 100 sets of household furnishings; and 3335 chickens — the whole valued at a total of \$109,617, but representing economic and social sufficiency, decent diet, diversified agriculture, and a well-rounded life for one hundred families who had previously been among the economic 'untouchables' of the Southern countryside. As the pertinent Government report points out, 'The project apparently has demonstrated that ordinary tenants and share-croppers — the kind of people sometimes described as "shiftless" — can make good with a little training and financial help — and at little or no cost to the taxpayer.'

VALUE OF THE FEDERAL SHARE-CROPPING SYSTEM

These and similar Farm Security projects demonstrate something which is equally important: that social cooperation and wise use of the land go hand-in-hand, and that it is entirely possible to apply the essence of cooperation to the

most 'backward' elements of our population by using the time-honored legal devices of rent, loans, and contracts. It happens that cotton-culture — as at Laforge — is one type of farming which lends itself to collective methods, now as in the days of *Uncle Tom's Cabin*, but similar results are being achieved all over the country with every type of farmer and every kind of farming.

In some communities, the individual farmer is granted a loan and given facilities — land, stock, seed, credit, and fertilizer — to operate his property under a farm plan for his particular enterprise. This system works well and the record of repayments under these farm-plan loans fully justifies the enterprise from a fiscal point of view. The chief point is that, under the old system, the rent due to the landlord used to be the sacred portion of the tenant's income; to rent were sacrificed health, food, comfort, and education, if necessary. Under this Farm Security system, while proper provision is made for rent, the sacred part of the tenant's income, the first charge upon his energies, is to provide decent food, shelter, and facilities for himself and his family — according to the contract. This new form of federal share-cropping is as revolutionary as anything in political history. There is no record of any similar measure in either the Soviet Union, Fascist Italy, or Nazi Germany. For the inhabitants of the Bible-and-Hookworm Belt it is the most radical innovation since Eli Whitney invented the cotton gin.

Once I asked Doctor Will Alexander to tell me the most potent thing which could be done to rescue the South from the aftermath of Appomattox. He answered: 'We are already doing it. We are seeing that the Southern farmers raise and eat sufficient food for a well-balanced diet. If we can do this for a couple of generations, we will remake the South. Without such a diet, any system for Southern reor-

ganization would slip back into poverty, disease, ignorance, and despair.'

This is perhaps the strangest and most dramatic development of our times — the discovery that the way to save the soil of America is to feed the people who grow our food. The dreadful poverty of our rural slums has gone hand-in-hand with the dangerous depletion of our soil and its fertility. The rehabilitation of the poor and rejected farmers — particularly the tenants, the croppers, and the dispossessed — into vigorous, well-fed, law-abiding citizens, by requiring them to feed themselves, is also rehabilitating the land as well as rescuing the rural areas from the triple curse of absentee landlordism, one-crop farming, and cash-crop agriculture. Within a decade of the troubled times when Arkansas farmers looted grocery stores and angry Wisconsin farmers spilled milk and blood on the highways and orderly Iowans bullied sheriffs and forced judges to kneel and kiss the flag, the American people were completing the human end of a peaceful farm revolution which promised to create within a single generation a cooperative commonwealth without parallel in the history of the Anglo-Saxon peoples.

CHAPTER VII

ZONING

AN EXTENSION OF THE IDEA USED IN THE CITIES

AFTER forty years of national struggle and experiment with the problem of the land and its utilization, the principle of zoning has emerged. With a country laid out on the scale of the continental United States, the most practical method is to cultivate it as though it were one great farm. Irrespective of political boundaries and private ownership, the only safe course in our catastrophic environment is to devote each section of the land to the use for which it is best adapted in relation to the whole land.

Social zoning has long been practiced in our municipal affairs. Within city limits the authorities can forbid house-owners to keep pigs and cattle, to dump garbage and to do other things which the sanitary code holds harmful to the health and comfort of the community. In many localities, the idea of zoning regulates the style and use of buildings and, as a matter of course, imposes certain standards of safety in construction and other details calculated to work to the benefit of the locality as a whole. So within state and county limits the constituted authorities are applying the zoning principle that discourages farmers from planting wheat and potatoes when the land could be better used for pasture or forest. As the national land policy develops, both through federal statutes and benefit payments and through local

county committees, the American people are approaching a solution in which individual landowners shall be required, under contract or by penalty, to apply the rulings of the land-use programs to their lands.

In short, the time is at hand when a farmer who wishes to grow cotton may be required to maintain a dairy-herd and the farmer who wishes to grow corn may find himself planting soybeans.

This idea contains the essence of a national revolution. It has long been clear that there are whole counties in the cut-over lands of the Lake States where cultivation is economically improvident and socially useless. There are also hundreds of thousands of acres in the Great Plains where the buffalo-grass should not have been plowed under to make room for wheat. There are great expanses in the Southeast where trees are the only crop which can repay human labor. There are watershed areas, drainage areas for reservoirs, which come under the principle of eminent domain for the purpose of flood-control and water-supply. There are other regions where enforced rotation of crops is the only salvation for the soil. And there are certain regions, like Yosemite and Yellowstone, where natural beauty demands that the place be left in a state of nature for the pleasure of the people, not to mention the requirements for game reserves for the wild life which is so important an element in the wealth of the continent.

WE BEGIN WITH THE PUBLIC DOMAIN

The greatest single stabilizing force in this national zoning is the seven hundred and fifty million acres of the public domain: the national forests, the national parks, the grazing reserves, the Indian reservations and all the other tracts on

which the National Government retains title. This is an estate as big as an empire, a reserve of land and natural resources on which we can depend to correct the balance of the lands under private ownership.

The problem is to work from this continental framework of the public domain towards the interest of the individual landowner. Zoning is, of course, automatically practiced on most farms. The farmer of the Northeast has long since learned that the way to preserve his land is to maintain a relation between wood-lot, pasture and tillage. But there are great regions where the sweep of geography is on such a tremendous scale that the methods which are prudent on a single farm in eastern Pennsylvania must be applied without reference to individual ownership. There are entire counties, perhaps entire states, where the principles of land use would revolutionize agriculture, and where rotation of crops must be practiced on a hundred-million-acre scale. We have Western cow pastures a thousand miles long and four hundred miles wide, we have woodlots stretching across six or seven commonwealths along the Appalachians, we have dams as big as the pyramids and duck-ponds as large as lakes. Some of our fences are shelter belts hundreds of miles long and forty miles thick. These spacious problems cannot be solved in the simple terms appropriate to a New England town meeting or by the practices developed by western Europe peasants.

TREMENDOUS SCOPE OF THIS SOCIAL PROGRAM

All this means that the authority for zoning must be the Federal Government, since the tremendous facts of North American geography far outstrip the jurisdiction of individual landowners, townships, counties or states. As the

Government program has discovered, in some regions zoning calls for individual farm plans on isolated holdings. Within counties and regions, it calls for cooperation of a more intensive character than anything yet experienced by the American people. Within states, it calls for a wide extension of legal authority over the rights of individual land-owners. Within the nation, it calls for practical socialism on a scale which dwarfs the city-bound sentimental philosophies of the Old World. Within the Hemisphere, it calls for imaginative diplomacy and international cooperation of a sort not yet recorded in the history of sovereign nations.

So tremendous is the scope of this zoning program, even in its simplest expression, that it is freed in advance from the restraints of social dogma. The old American policy of giving a dogma a bad name here stands us in good stead. We do not propose to make proper use of our lands because of something written by Marx or Hitler. We do not relate the production of wheat or beef to the theory of the master-race or to the glorification of the state. We do not base our plans for social cooperation on the sentimentalism of European socialism or on the brotherhood of the proletariat. We go instead to the land as it is, in every sort of climate known to the northern hemisphere and under every form of society, from Southern race segregation to the relics of pioneer individualism. We fit our methods to the varied character of a hundred different breeds, regions and types of farming: the Pennsylvania Dutch, the Yankee farmers, the corporation-owned farm, the paternalistic plantation, the Indian and Mexican sheepherders, the cooperative Mormons and the so-called 'gentlemen farmers' of the Eastern seaboard, with one eye on the horse show and the other on the Social Register. And we deal with farming people of every variety of culture, from illiterate tenants and share-croppers to new-

poor migratory workers and soundly educated father-to-son establishments.

This means that the theory of zoning which we are discovering is broad enough to cover all of America, elastic enough to satisfy the legitimate interests of creditors, mortgage-holders, insurance companies, debtors, land speculators, cattle and lumber companies, as well as millions of simple people who work for a living from year to year. This means that the national zoning program which has been begun in the last decade is adjusted both to the level of intelligence and to the practical needs of farmers throughout a nation of one hundred and thirty million people spread unevenly over three million square miles of territory. This means that our land-use plan is entirely realistic, unemotional, and scientific in its proposals for making the best and most efficient use of our two billion acres.

BY CONSENT OF THE GOVERNED

This is exciting and important. While the totalitarians have been imposing their farm collectivism by machine guns, concentration camps, slave labor and secret police, the American democracies have been working from the solid ground of 'the consent of the governed' to build an enduring form of national socialism in agriculture. America has done and is doing things with agriculture which, if attempted with industry, would produce headlines and editorials and national excitement. Yet America has done this with the slow, steady, resistless flow of a river, while the intellectuals and the publicists have been excited about such details of industrial management as strikes, collective bargaining, excess-profits taxes, and what is called 'radicalism.' And all the time that public attention has been focused on

these trifles, the people who work and use the land have been building a democratic collectivism which is incomparably the greatest social achievement of the past three hundred years.

PART III

THE WATER

CHAPTER I

TOWARDS A DYNAMIC CIVILIZATION

INDIVIDUALITY OF AMERICAN RIVERS

ASIDE from size, scale and climate, there was another tremendous difference between North America and western Europe. This continent was, above all, a land of lakes and rivers, where Europe was, essentially, a peninsula and islands cradled in the seas. So the Europeans had become, in their dynamic drive for expansion, seafarers and fishermen, and it was natural for the transplanted Europeans who colonized North America to value its unique endowment with water resources as meaning chiefly that navigation and fishing were part of the natural wealth of the New World. Thus the tidal rivers of the Virginias served as highroads to the plantations, the rivers of New England became ship-building centers, and as the American people spread westward they continued to regard the rivers and streams as means for transport and travel.

Unlike the Spaniards and the Indians who jointly created the great mestizo civilizations south of the Rio Grande, to those who settled in North America water had never been a problem. That water is life and water-supply is civilization were truisms so old that they were taken for granted. We were a race of seafarers and yeomen, coming from the deeply indented coastlines of the Old World and from the pleasant little rivers which water the European Peninsula.

We entered a land of great rivers and mighty streams, of inland lakes as large as ancient seas, of vast regions without much water. Men from the tideless waters of the Mediterranean faced the sixty-foot tides of Fundy and the savage storms off Hatteras. The winds which blow in North America are great winds, avalanches of air, tornadoes and cyclones, meteorological dinosaurs raging among men accustomed to the barnyard breezes of the sheltered Continent.

There was no way in which we could learn, save through experience, that North America was fundamentally different from western Europe. There was no way in which we could have imagined that the first principles of life in North America were other than those of the Old World. We were entering a land in which the rivers were as fundamental as were the seas to Europe, to a land in which seafaring was unnecessary, to a land whose resources of flowing water seemed as unlimited as the forests and the seas.

WE KILLED THE FISH AND SULLIED THE WATER

For three hundred years, we ignored the relation of the water-table to the land — that underground water-supply without which crops wither and the land fails. We ignored the relation of the forests to the streams — the cover which slows down and equalizes the flow of our rivers. We ignored the relationship between methods of cropping and navigation and fertility — the leaching and gullyng and erosions which choke the rivers with silt and stain the waters of an entire continent with the soil on which we must depend for life itself. We forgot the very balance of Nature: we killed the fish with industrial wastes and we polluted the waters with sewage and accepted the toll of disease and death as though it were an act of God. We did not dream of the

thundering energy of our thousand rivers as the key to a new age of power and electricity. We even abandoned the rivers as highways and hauled our goods expensively with coal and steel and infinite labor. We suffered from floods, we built levees, we built dams, and we dug canals and ditches — and all the time we had beneath our eyes a treasure in water far more valuable and useful than all the railroads and all the coal.

Farmers were driven off their lands in the Great Plains and throughout the Southwest, as the remorseless cycle of dry spells combined with wanton agriculture to lower the water-table and millions of dollars were spent on irrigation works in a costly effort to turn back the clock of Nature. Governments instituted expensive programs to protect and restore the wild life. Yet year after year the trouble deepened, and while we were thinking of laws and reforms, of dollars and debt, a great economic problem shook the nation as its water-supply faltered and its basic wealth dwindled.

SHEER SIZE AGAIN THE PROBLEM

We had forgotten that the problems of the Old World had been multiplied a thousandfold in the New World. We had not realized that in economics as well as in politics there was need for an American Revolution and a Bill of Rights. What was possible in Europe, through the individual effort of peasants and landlords and at the most through little kings, could only be achieved in America through the united energies of the whole people. Our frog-ponds had to be multiplied to the Gargantuan scale of a great continent — Norris Lake, the man-made sea above Boulder Dam, Grand Coulee's waters impounded as far north as Canada: these were America's ponds, and they represented an invest-

ment of labor and materials beyond the capacity of even our gigantic industrial corporations and tremendous banks. Our ditches and canals were as long as many Old-World rivers. Our embankments against floods were as long as many European frontiers. The system of levees on the Lower Mississippi alone bore a closer resemblance to the Maginot Line than to the Embankment on the Thames. Even before the Federal Government really began to develop our hydro-electric resources, such lesser enterprises as were within the limited powers of our great private financial system became the most dynamic of American Big Business and created utility empires so powerful as to match the wealth, resources, and loyalties of Old-World nations.

Slowly, we began to realize that a great country called for a great imagination and a great effort, if we were to match its grandeur with our own intelligence and resourcefulness. Slowly, we began to realize the futility of fixed principles or limited ideas in dealing with the limitless energies and boundless resources of North America. Slowly, we began to grasp the idea that only by great faith, great patience, great labors, and great works could we master the great rivers which were the life-blood of our continent. To meet this problem called for the creation of a new principle in our public life — the concept of a public business which lay beyond and above the administrative duties of the political system. This meant that we should be forced, as a condition of survival, to abandon many of our notions as to individual effort, limitation of governmental powers, public finance, and social usage. This meant that we should be driven, by the pitiless pressure of events, to subordinate many of the impulses and institutions of the private business system which had developed the nation and made us great. This meant that the waters of North America were destroy-

ing the fundamental principles of American economy as steadily and as ruthlessly as the Mississippi eats away a sandbar or washes out a levee in time of flood.

PROGRESS TOWARDS A DYNAMIC SOLUTION

In the beginning this was not the case. At first, our forebears tried to reproduce on this continent a replica of European ways and institutions. The impact of the size of North America at first induced a sense of abject dependence and exile upon the pioneers. That mood passed with the conquest of the French and Indians. It yielded to another mood, in which all the rules of Old-World prudence were cast aside, in the easy belief that the resources of the continent were inexhaustible and could be exploited to infinity.

This second mood passed with the vanishing of the American frontier about 1896, when the setbacks and disasters ruined the cattlemen and the abortive agrarian revolt led by the Populists and William Jennings Bryan met with political defeat. But this defeat served only to allow time to rally the forces and induce the spirit of wider nationalism, in which the power and authority of the Federal Government should assist the American people in their individual and community efforts to adapt themselves to the conditions which they found and had created on this continent.

The process had already begun when the Army Engineers constructed the Erie Canal and the Chesapeake and Ohio Canal, and when they undertook to control by levees the floods on the Lower Mississippi. It continued with the Reclamation Program initiated by Theodore Roosevelt in 1902, and with the beginning of work on Wilson Dam at Muscle Shoals in 1918.

For many years the real drift of events was obscured by

political cross-currents and economic slack-waters, in which progress was episodic and apparently aimless. It was only in the nineteen-thirties that the American people, acting through their National Government, perceived the pattern and design that ran through their struggle with the tremendous rivers of the United States. The first multi-purpose dam for the control and use of our rivers contained within itself the key to a national policy which is beginning to renovate the conditions of life in the United States.

MULTI-PURPOSE DAMS

That policy is based on the principle of adapting ourselves and our institutions to the rivers and lakes which are the most distinctive feature of our national environment. The same dam that regulates floods can generate power, aid navigation, and irrigate deserts. But to achieve the benefits of any or all of these services, we are being compelled to rearrange ourselves in relation to the rivers. The benefits of flood-control cannot be realized without a stable agriculture. The generation of oceans of hydro-electric energy is useless unless industries and individuals are enabled to take advantage of this flood of cheap power. It is a labor of love to improve navigation unless we begin to ship certain varieties of freight by barge and steamer, reserving to the railroads costly or perishable freight. To irrigate the deserts is of no use so long as the farming population faces the problem of overproduction and underconsumption.

THE THEORISTS WERE THE PRIVATE INTERESTS

We have achieved this policy without any initial decision to do so. Our public life operates on the principle of dealing

with problems as they arise, and in terms of themselves rather than in terms of any social theory. It is a matter of record that the only theories which have been advanced in this connection have originated with private economic interests which sought to condemn public enterprise and social investments in advance as being contrary to American tradition. We began the levees on the Mississippi River because the great city of New Orleans was threatened by periodic floods. We initiated the system of headwater control of floods, on the Miami River, because the city of Dayton, Ohio, had been half-destroyed by a dangerous flood. We undertook the extensive improvement of navigation on the rivers of the Great Valley because the farmers, in a mood of political discontent, were angry at the railroad freight rates and demanded cheaper facilities for moving their crops to market. We initiated the Reclamation Service in the West because the turn of the weather-cycle had exposed numerous farmers — and voters — to drought and bankruptcy. We began to manufacture hydro-electric power at federal dams because it was a resource which had been developed for national defense and because it offered a sound economic means for repaying some of the cost of these enormously expensive structures. Since the alternative, in the case of power, was either to waste the energy or to use, for the enrichment of private corporations, funds contributed by all of the people, there could be no real choice under any system of democracy. Bit by bit, on the basis of practical necessity, national experience, and political demands, we found that, within a period of forty years, we had effectively assigned to the Federal Government exclusive jurisdiction over all navigable streams and their tributaries, for the purpose of controlling our water resources in the interest of all the people.

This evolution was so slow that only on rare occasions — as when the T.V.A. was challenged by Mr. Wendell L. Willkie, of the Commonwealth and Southern public-utility holding company, or when the *New York Times* announced that power had ceased to be a political issue — was it possible to discern the landmarks which we were passing. Yet in its entirety it constitutes a legal and social-economic revolution in the life of North America.

SO MUCH WEALTH FOR SO MANY PEOPLE

For our rivers are very big rivers. They empty into two oceans, the Gulf of Mexico, the Straits of Belle Isle, and Hudson's Bay. They discharge a tremendous volume of water day and night, winter and summer, year after year. A Third Reich which controls the Rhine, the Elbe, the Oder, and the Danube; a United Kingdom, with authority over the Thames, the Severn, and the Clyde; a Third Republic, with the Seine, the Somme, the Rhone, and the Gironde; a Third Rome, with the Tiber and the Po; even a Third International, with the slow-flowing Volga, Vistula, Dnieper, and Dniester, as well as the streams which wander into the Arctic Ocean through the quaking Siberian tundras — all of these put together do not command the useful water resources at the disposal of the United States Government for the use of the American people.

Our failure to understand the magnitude of our heritage of water brought us close to disaster and did in fact periodically expose to ruin large groups of our people. Now that we have discovered, by trial and error, how we can work with the rivers, we have within our grasp the secret of a dynamic civilization the like of which has never before been known in human history. Nowhere else on the face of the globe

can so few men produce so much wealth for so many people. Nowhere else is it possible to link the most efficient mass-production methods, the most economical means of transportation, the most scientific agriculture, into a single pattern of production, distribution, and exchange. Nowhere else is it possible for an investment of half a billion dollars by the Federal Government to create, automatically and arithmetically, a billion dollars' worth of real wealth — using the dollar merely as the symbol of human effort applied to the production of goods and services. Nowhere else is it possible and even necessary for the humblest farmer and industrial worker to have the fullest advantage of the machine age in his employment and in his daily life and work. Nowhere else is it conceivable that the great human renaissance — the rebirth of hope, of culture, of religion, and of applied learning — can be permanently directed into channels of construction and peaceful enterprise, instead of being twisted into a means of conquest and war.

All these things are implicit in a wise and determined use of the water resources of our continent. Failure so to use those resources may make of North America another China, a land of flood and sandstorm, with waning fertility and apathetic resignation to man-made geographical catastrophe. In fact, a Mississippi River Commission has reported, soberly, that it has not yet been established that the North American Continent can permanently support a stable agricultural civilization. Yet the facts are now known, the techniques have been developed, and we possess both the man-power and the equipment needed to prevent catastrophe. Only collective incompetence or foreign conquest can keep us from evolving a civilization which will be as great, vigorous, and tough-fibered as anything recorded by history. For the power from our rivers and the wealth from our rainfall are

resources which need never be exhausted. All other civilizations have faded as their people used up their basic wealth. To us alone the future holds the national promise of that fountain of eternal youth sought by the earliest explorer to land on our soil.

CHAPTER II

THE RIVERS

RHYTHM OF THE RIVERS

EVERY year, on the average, nearly two and a half feet of water — or more than thirty-three hundred tons per acre — falls on the two billion acres which constitute the continental United States. This rainfall mounts up to a total of nearly seven trillion tons of water, falling on hill and valley, rooftop and butte, falling on lake and river, forest and field, mill and mansion, trickling around stones, seeping through leaves and grass, gnawing gullies across the land, seeking to find the level of the sea. Some of it evaporates, much of it soaks into the ground, but between one tenth and one half of this ocean of rain- and snow-water runs off into the thousands of rivers and lakes and streams which make North America unique in the temperate zone.

Wherever you go, in the coulee country of the Northwest, the canyons of the Southwest, the glacial gorges of the Northeast, or the broad river basin which lies between the Alleghanies and the Rockies, you can see the work of the waters upon the land. Thousands of miles of inland waterways, canals, levees, spillways, dams, and irrigation ditches bear witness to a conscious American effort to use the waters which pour down upon this continent and to protect ourselves against flood and drought.

The rivers are imposing their own rhythm on the American

people; the rivers are transforming us from seafarers and nomads into more settled but not less dynamic ways, in our great gamble against weather and geology.

Merely to recite the names of some of our famous streams is to relive our history: the muddy Missouri, which carried Lewis and Clark into the vast realms of the Great Plains and the mile-high battlements of the Rocky Mountains; the gigantic surge of the Columbia which greeted the argonauts of the covered wagon on the old Oregon Trail; the Colorado, losing itself in a labyrinth of canyons. Then there are the Illinois, where Joliet and Marquette paddled their flotilla of canoes in the midsummer of 1673 and La Salle floated down in the winter of 1679-80, where today towboats push huge bargeloads of freight from Chicago to St. Louis, the Ohio, the Monongahela, the Allegheny, and the Tennessee, whose waters greeted the pioneers of the great crossing.

And the Mississippi, the Great River, the Father of Waters, which has woven itself into the drama, romance, and tragedy of the nation, the stream of our folklore, our folksong and literature, and our history, from Corinth to Vicksburg, from Mark Twain to Handy, the river down which Abe Lincoln took a boatload of corn, pork in barrels, and live hogs to New Orleans. The river of the showboats, the fast packets and the gamblers, the river of Admiral Porter and his iron-clads steaming down towards Island Number 10. And there is the little river town of Hannibal, Missouri, where young Sam Clemens lived the boyhood which became Huck Finn and Tom Sawyer, and that other little town of Galena, Illinois, where Ulysses S. Grant, discouraged and a failure in 1860, was followed up the riverbank by his wife and children.

To the eddies, the sandbars, the winding valleys, and the curving shorelines of our rivers, the American people have

turned again, after seventy years of machine progress and money prosperity. They have begun to stop the little floods as well as the big ones, to save the millions of tons of silt choking the river-beds, to save the farm-lands, the homes, and the cities, and to provide all of the people with the benefits of the vast store of water-power.

THE RIVERS IN HARNESS

All the way around the great sweep of the nation, from the Kennebec and the Penobscot in Maine to the Columbia in Washington, up and down the great inland valley, the people of the United States have been working to control and use their waterways. The Army Corps of Engineers, the Bureau of Reclamation, the Tennessee Valley Authority, the Civilian Conservation Corps, the Works Project Administration, and the Public Works Administration, all have combined in a tremendous and imaginative enterprise on a continental scale. The Army alone has spent nearly a billion and a half dollars on rivers and harbors. The Bureau of Reclamation has constructed huge dams throughout the West, and has opened up over half a million acres of land to irrigation, with hundreds of miles of canals and drainage ditches. There are sheltered waterways along the inlets of the Atlantic coasts and around Florida to the Gulf of Mexico; a great Mississippi River project to open the river to navigation from New Orleans to Minneapolis; dams which have made engineering and political history — Boulder, Bonneville, Norris, Fort Peck, Grand Coulee; flood-control works and levees from New England to New Mexico; the St. Lawrence itself about to become the center of the greatest power development in the world, opening the Great Lakes to seaborne trade.

In the single state of Louisiana, the Army Engineers have undertaken or continued over twenty-six projects in the last eight years, including the Southwest Pass and the South Pass of the Mississippi; the Louisiana and Texas Intracoastal Waterway from New Orleans to Corpus Christi, Texas; the Ouachita and Black Rivers flood-control; the Colfax Cutoff; Grand Parish levees; Fire Point Cutoff; flood-control in the Red River Basin and in the Ouachita Basin — all this in addition to the work under the jurisdiction of the Mississippi Valley Commission.

Then the dams — twenty-eight big Government dams begun or completed since 1933 — Caballo on the Rio Grande, Alamogordo on the Pecos; Bonneville and Grand Coulee on the Columbia; Chickamauga and Pickwick on the Tennessee; Norris on the Clinch; Imperial and Boulder on the Colorado; Shasta on the Sacramento; Bartlett Dam in Arizona; Fort Peck on the Missouri. Thirty-three additional dams are projected for reclamation alone, promising to add millions of acre-feet to the storage reserve of Western waters. Hydro-electric installations with a capacity of millions of horsepower and millions more authorized; and a daring though frustrated attempt to harness the power of the Fundy tides at Passamaquoddy.

On every important river and stream, particularly around the headwaters, and in every important harbor on our seacoasts and along the shores of the Great Lakes, there is evidence of men at grips with Nature. Slowly, steadily, with increasing power and skill and purpose, we are taming the rivers and harnessing their power, we are storing their floodwaters, we are dredging our harbors, digging our canals, rearing our dikes and dams and levees, until we can truthfully say that we shall be able to deal with the savage downrush of the waters upon our lands.

CHAPTER III

LITTLE WATERS

IMPORTANCE OF THE RAINDROP

You can build your levees until they are hundred-mile-long ramparts, keeping pace with rivers, marching along beside the floods. You can build your dams until they rival the pyramids, masses of concrete hemming back small seas. You can dredge and you can dike. You can pump and you can drain. But the secret of the waters that fall upon this continent lies beyond you, at the headwaters and above the headwaters, in wood, field, and pasture-land, the desert and the prairie, the mountain and the hill, upon which the waters fall, gather, and pour down towards the sea.

It is easy to appropriate money for levees and cutoffs, easy to build dams and install locks and dynamos. We have the tools for these things. They are visible, but the mastery of the big waters begins with the mastery of the little waters. A raindrop falling in the Ozarks or the Great Smokies may grow hay or corn, may turn a turbine or float a barge, but a raindrop on the blasted burnt-over barrens of West Virginia or on the slow, treeless slope of the Nebraska plains may help flood out a town or wash away a dozen farms on its way to the Gulf.

At the White House Conference of 1908, the main address was given by Doctor Thomas C. Chamberlain, of the University of Chicago, who told the nation:

Soil production is very slow. I should be unwilling to name a mean rate of all soil formation greater than one foot in ten thousand years. In the Orient there are large tracts almost bare of soil, on which stand ruins implying flourishing populations. Other long-tilled lands bear similar testimony. It must be noted that more than a loss of fertility is here menaced. It is a loss of the soil body itself, a loss almost beyond human repair. When our soils are gone, we, too, must go unless we find some way to feed on raw rock. . . .

The key lies in due control of the water which falls on each acre. The highest crop values will usually be secured where the soil is made to absorb as much rainfall and snowfall as practicable. This gives a minimum of wash to foul the streams, to spread over the bottomlands, to choke the reservoirs, to waste the water-power, and to bar the navigable rivers. The solution of the problem essentially solves the whole train of problems running from farm to river and from crop production to navigation.

ONE THING AFTER ANOTHER SHOULD HOLD THE WATER

The smallest dam in the world is a blade of grass. The next best obstacle to the flow of water is a tree, whose roots hold the soil and absorb the moisture, whose branches temper the lash and drum of the rain, whose dead leaves fall to the ground and delay the flow of the water. Then there are the fields, plowed haphazard and cancered by gullies, or tilled according to the contour of the hills, holding back the rain. There are forests, pastures, check-dams, and undergrowth, rain-barrels and ice-ponds, stepping-stones and milldams, checking the free run of the water down to the sea.

In 1936, three federal bureaus published the facts, plain for all who can read and understand.

Before the United States was discovered and settled [said this pamphlet] Nature through many thousands of years . . . employed every possible device to promote absorption and infiltration of the rains and melting snows. Grasses, herbs, shrubs, trees, rotting logs, twigs, leaves, stones, and pebbles were retarding instruments; grass, herb, shrub, and tree roots kept the surface soils porous and permeable; the humus blanket kept many soils readily absorbent. Low-lying flat lands became swamp, marsh, or wet lands; pockets and depressions in the sloping surface became ponds and lakes; the underground became a great reservoir. These agencies served to retard the flow of water to the seas, to extend the duration, increase the evaporation, and reduce the crests of floods, and in dry seasons to sustain by springs and seepage the normal flow of streams.

Speaking broadly, the first settlers in a forested region selected fertile, high and dry rolling lands; those easiest to clear and make ready for immediate cultivation. Their pressing need was sustenance and some surplus income from marketable crops. Later settlers selected as nearly similar land as was available, but had to accept a larger proportion of wet and denser forest land. The latest settlers had to accept what was left: the most wooded, wet, sandy or hilly land. Because of their need for sustenance and of the ready market for cereal, cotton, tobacco and similar crops, the immediate dominant motive was to clear the forests and drain the lands. . . .

Thus developed a triple movement which adversely affected the natural balance of land and water factors: drainage of ponds, swamps, and other wet lands; plowing under of natural sods; and removal of the forest cover with attendant unfavorable influences. . . .

The motivating factors were simple and are understandable. The population was increasing rapidly, both naturally and by immigration; land is a possession and a farm is a home, and it is obvious that the greatest immediate benefit to the

individual landowner of that generation was improvement of his property.

STILL THE WATER-TABLE FELL

So it went, for three hundred years, until it became clear that the individual landowner's meat was the community's poison, that the drainage of swamps and the cutting-down or burning-off of forests and the plowing-up of prairies spelled collective ruin. The water-table — that vital supply of underground water which feeds the wells, springs, and ponds — began to fall, from ten to thirty feet west of the Red River of the North. Communities which had regulated their resources according to the standards of the rain-soaked lands of western Europe found themselves forced to pump for water, deeper and deeper, and in dry spells to ship water in by rail or to send their stock hundreds of miles away. The fields gullied beneath the rain. The rivers of the nation flowed yellow and were clogged with top-soil — four hundred million tons of it flowed into the Gulf of Mexico each year on the broad back of the Mississippi River alone. Floods, when they came — as they did with every turn of the immemorial weather-cycle — mounted higher and drove men back still farther from the rivers. Water, by which men live, became the agent through which a nation was threatened by death.

ON RAINY DAYS SAVE FOR THE DRY

Since 1930, for the first time in our history, the American nation has come to grips with the little waters which were eating away its heritage. The rivers had been walled with dikes for over a century. Dams had been built for over a

generation — big ones, too. Forest-lands and forest-preserves had been encouraged since the days of Gifford Pinchot and Theodore Roosevelt. But it was not until 1933 that the Federal Government focused national attention upon the stealthy, the irreplaceable wastage of the little waters which make up our rivers.

During the period of 1933-40, the American people, acting through their Government, attacked this enemy on thousands of fronts through every major agency of federal authority. Trees were planted by the million. Fields were terraced. Lands were graded and classified. Grass was sown. The Forest Service began the great shelter-belt of trees along the edge of the Great Plains. W.P.A. workers helped dig stock-ponds. Wells were bored. Check-dams by the thousands were built. Gullies were choked. Row crops were planted in rotation and with due regard to climatic conditions. On every farm and in almost every household outside city limits, some attention was paid to the problem of the rainfall. We began to accept the ageless advice of Voltaire's *Candide*: to cultivate our garden.

Under the T.V.A. we began a unique experiment in watershed protection. A whole river basin — the womb of many a flood which had come upon the Ohio and the Mississippi — was placed under voluntary, cooperative control, with concrete benefits in power generation, water transport, and restraint of flood-waters as the immediate goal for a wide social purpose. While the nation read of Muscle Shoals, Norris Dam, and the litigation between the Federal Government and the private utility corporations, the T.V.A. worked out with the most individualistic breed of American citizens the technique for mastery of the little waters and sovereignty over the rivers.

This cooperative program was something new. Nobody

made speeches about it in Congress. There were no editorials to denounce or approve the planting of an individual tree, the checking of an individual gully, or the sowing of one seed of grass. There were no ceremonies to celebrate the restoration of the humus, the filling of a stock-pond on a Western farm, or the decision of an individual farmer to accept the zoning recommendations of the state and federal authorities. No man's name went up in bronze, as the C.C.C. boys bent their backs to stock the hillsides with locust seedlings or as the Biological Survey marked off swamp-lands for wildfowl. There were no fanfare and no glory in the whole immense achievement. The statistics are impressive — so many million acres terraced; so many million acres planted; so many gullies stopped; so many wells dug; so many ponds created. But the statistics are only milestones along an interminable national road. Those of 1940 will be obsolete in 1941 and will mean nothing in 1951.

Set it down, then, that at the eleventh hour we found the men and the intelligence and the money and the public cooperation to undertake the control of water at its source: the little waters which form as the rain falls, before they link themselves into streams and river, floods and torrents, before they can gnaw away our land and impoverish our people.

CHAPTER IV

FLOOD CONTROL

THERE HAVE ALWAYS BEEN FLOODS AND LEVEES

AN OCEAN of rain-water and snow-water rolls over North America, year after year. Some years it rains more than usual. The weather-cycle swings to a peak every twenty-one years, there are shorter peaks at ten-year intervals, and meteorologists have begun to study the still more stately periods of fifty, a hundred, perhaps five hundred years, which vary the climate and the rainfall of this planet.

In some years, there is simply more water trying to reach the oceans which surround our continent than there are channels to take care of the run-off. Then the lands along the river courses become flooded and the streams themselves cut and lash at the land, seeking new avenues of escape to sea level.

When the French first located the mouth of the Mississippi, then flowing through a virgin continent, the river was struggling to discharge into the Gulf of Mexico one of the greatest floods ever recorded. When the Spanish settled at what is now New Orleans, to prevent their city from being washed away, they were compelled to erect levees along the riverbanks. During the early decades of the Republic, the levee system was extended and maintained mainly by the states and municipalities along the Mississippi and the other rivers. After the Civil War, an impoverished South

turned to the Federal Government and the Army Corps of Engineers to weave together the system of drainage areas, cutoffs, and levees which protect the cities, towns, and fields along the Mississippi River, from Cairo, Illinois, and Paducah, Kentucky, down past Memphis, Vicksburg, Baton Rouge, and New Orleans to the Gulf. With immense labor and at immense cost, the levee system has been continued and improved, until at high-water stages the steamboats and the barges move well above the level of the surrounding rich lands of the Delta. City after city, on river after river, has adopted this ancient device of erecting walls against the flood-waters, from the traditionally prim Connecticut to the less well-mannered rivers of the midland.

As every American knows, there are apt to be floods on the Mississippi. From Cape Girardeau, Missouri, south, there are 2500 miles of levees; above the Cape to Rock Island there are 900 miles more — over 3400 miles of levees, over a billion tons of earth-fill, erected at a cost of \$400,000,000, yet the annual loss from flood damage between 1924 and 1937 average \$102,000,000 — not to mention ninety lives a year. The Mississippi floods in 1927 alone killed 246 people and did \$300,000,000 of damage. Floods come on the Mississippi and they make big headlines in the newspapers, interesting shots in the newsreels. The flood of 1927 preceded the stock-market crash of 1929, and the floods of 1936 and 1937 preceded the depression of 1937-38. But floods to the average citizen are things which happen somewhere else.

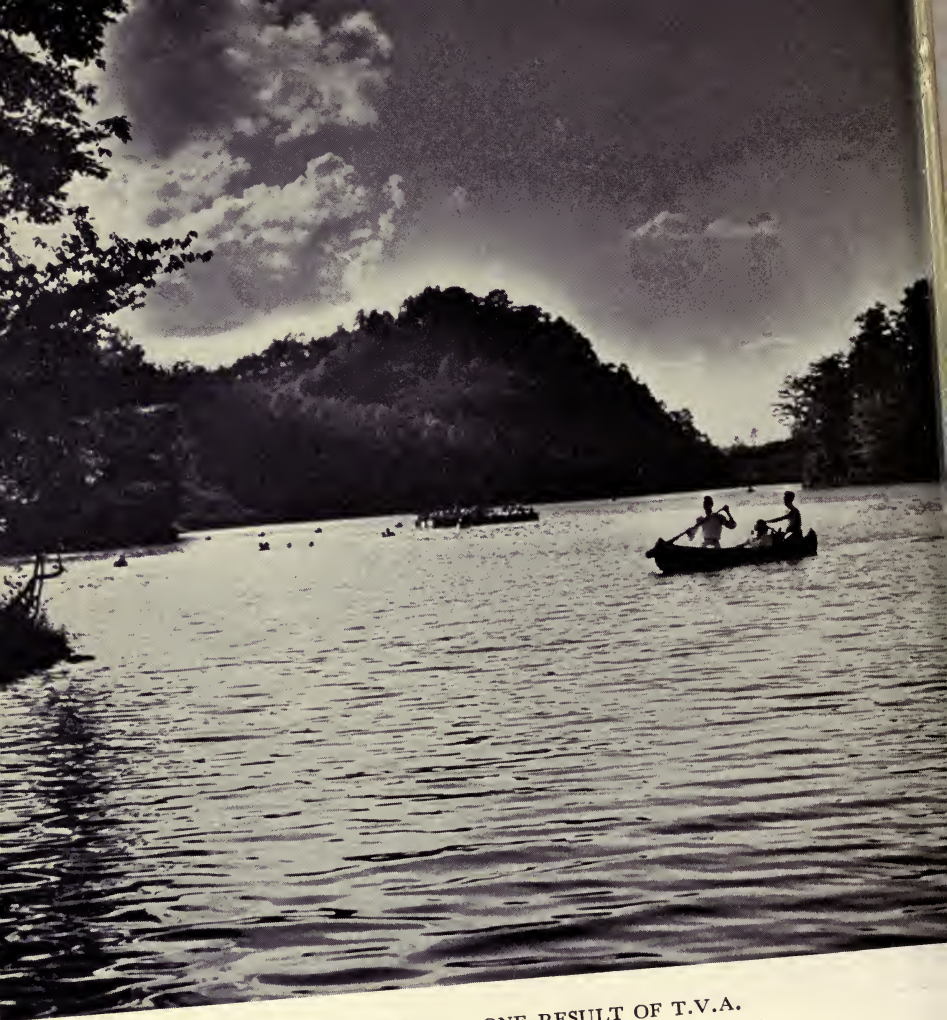
BUT NOT IN CONNECTICUT UNTIL —

So, at least, thought the citizens of Hartford, Connecticut, prior to their experience in the spring of 1936.



CHICKAMAUGA DAM AT NIGHT
TENNESSEE

T.V.A.



BIG RIDGE LAKE, ONE RESULT OF T.V.A.
TENNESSEE



Farm Security Administration: Photo by Lange

STERNWHEELER AT THE LEVEE
MISSISSIPPI



Farm Security Administration: Photo by L

**FIGHTING FLOODS WITH SANDBAGS IS A RESULT OF
NATIONAL MISMANAGEMENT**



Farm Security Administration: Photo by Le

WHERE THE LEVEES COULDN'T HOLD OUT THE FLOOD
CAIRO, ILLINOIS

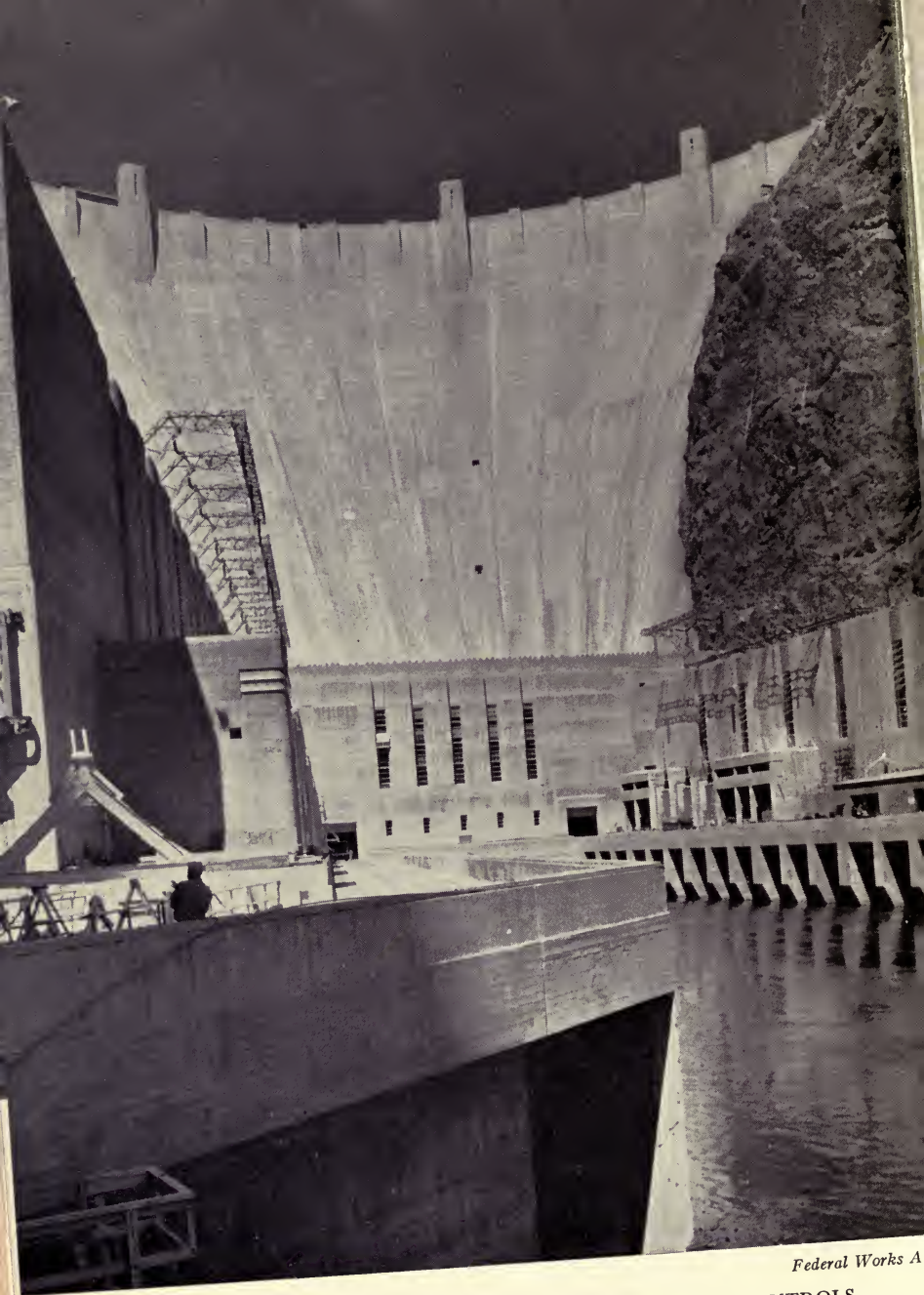


Photo by Corps of Engineers, U.S. Army

PRESS BARN DIKES
CONNECTICUT



INTAKE TOWERS AT KEYSTONE DAM
OGALLALA, NEBRASKA



Federal Works A

BOULDER DAM — ONE OF THE NATION'S WATER CONTROLS
NEVADA

The Connecticut River Valley is one of the peaceful, valleys of America. It has scarcely known the foot of an invader since the French sent the Indians over the Mohawk Trail to the Deerfield Massacre two hundred-odd years ago. It is a neat, fertile, self-respecting valley, tilled by Poles and Italians and aboriginal Yankees, with large industrial towns like Springfield and Hartford to punctuate the southward flow to Long Island Sound. Along the Connecticut they grow wrapper-tobacco for cigars, make rifles and airplanes and sell insurance. It is a restrained and decorous river with the good manners of a child in a Presbyterian meeting-house — or was until 1936, when it had a flood with much the same scandalous effect of the minister's daughter giving birth to an illegitimate child. For floods belonged out West, with the buffalo and the Indians.

Since 1939, as a result of this misconduct, we have been working on Connecticut River flood-control and substantial progress has been made on levees along the river at Northampton, Holyoke, West Springfield, Chicopee, Hartford, and East Hartford. A system of ten reservoirs has been started on the Connecticut River and its tributaries following a congressional investigation of this flood under the Flood Control Act of 1936. The cost is estimated at over \$11,000,000 for levees and over \$13,000,000 for dams. Dams or reservoirs are to be built at East Haven, Lyndon Center, Victory, Harvey Lake, Groton Pond, South Branch, Union Village, Gaysville, Ayers Brook, South Tunbridge, North Hartland, North Springfield and Newfane; in Vermont; at Bethlehem Junction, Claremont and Surry Mountain in New Hampshire; at Lower Naukeag, Birth Hill, Tully, and Knightville in Massachusetts.

These are not mere duck-ponds, but are sizable enterprises. Take, for example, the Union Village Reservoir in

Vermont. This is located on the Ompompanoosuc River, four miles above its junction with the Connecticut, and will create a reservoir three and a half miles long. The project provides for the construction of an hydraulic-fill earth dam 1100 feet long at the rest line, rising 700 feet above the stream-bed and providing a storage capacity of 30,200 cubic feet. There is provision for eventual power installation. The estimated cost is over \$2,100,000 for construction and about \$265,000 for lands and damages, with an annual maintenance cost of \$16,300.

Coming down to Hartford, Connecticut, we find the city engaged in the construction of new dikes, concrete flood-walls, and pumping-plants for the protection of the city. These will connect with the existing dike in the South Meadows section, which was constructed as a Federal Relief project under the city's sponsorship. The estimated cost of the new work is nearly \$4,500,000.

Using the Work Relief system, dikes have been built at Hartford, East Hartford, Springfield, West Springfield, Chicopee, Holyoke, and Northampton, at a total cost of \$2,500,000 — at Hartford nearly two miles of levee and a pumping-plant, at East Hartford 7000 feet of levee, at Springfield and West Springfield over 4000 feet of levee, at Chicopee nearly a mile of levee, at Holyoke a flood-wall 3600 feet long. In addition money has been appropriated and work begun on three of the big dams involved in this flood-control project on one of our smaller and better-behaved rivers — as part of the millions spent each year on flood-control throughout the nation.

THE FLOOD-CONTROL DEMANDS OF A CONTINENT

In this process of controlling floods, new powers have been

cheerfully assumed by our Government (and placidly yielded by the people and the states) because our rivers are facts which override laws, customs, and social institutions.

No such problem had confronted the ancient peoples of western Europe who had come to the United States. Their cities in the Old World had been deluged from time to time, but this was more of an inconvenience than a danger, since the rivers of western Europe were little rivers and their floods were neither of long duration nor of great extent. Hence there had never been developed the political theories or the public agencies by which alone was it possible to cope with the problem of waters which started for the Gulf of Mexico from the ridges of western Pennsylvania, near Lake Erie, or from the Continental Divide in Montana, and which flowed past or through a score of supposedly sovereign commonwealths on their way to the sea. Under the Constitution, the Federal Government had jurisdiction over navigable waters, and it soon became clear that the problem of the rivers extended beyond the reach of navigation, while — more important still — it was beyond the financial capacity of cities like New Orleans or of the planters along the Mississippi Delta to protect themselves from floods originating in the Great Smokies or the High Rockies. So, to deal with these floods the Federal Government was invoked. This was a principle which cut squarely across the tradition of individual ownership and of state sovereignty, and was one which later was to lead to a wide extension of federal authority over water-power.

Despite the crude efficacy and the obvious practicality of the levee system, it was clear that there were other measures of flood-control of equal importance. These measures centered around the idea of control of the headwaters of rivers liable to flooding, control in the form of dams and

catchment-basins. By a process as basically simple as that involved in filling and emptying a bathtub, it was clear that dams, properly designed and operated, could be used to check and store the flood-waters and to release them after the danger peak of the flood had been passed. By a system of river-gauges and scientific observation of the speed with which flood-crests moved along the rivers, it was possible to remove inches and even feet from the flood-levels as they thrust along the river valleys.

THE PROOF IN T.V.A.

That such was indeed the case was demonstrated by the epoch-making engineering works of Doctor Arthur H. Morgan, the first chairman of the T.V.A., in controlling the waters of the Miami River after the disastrous flood at Dayton, Ohio, before the World War of 1914-18. The chief difficulty involved in this process was that of expense. A dam involved long and costly construction, purchase and clearing of lands in the catchment-area behind the dam, and only partial control of the rivers, since the system could not be effective without reasonably complete damming of the innumerable headwaters of our network of rivers. Another difficulty was lack of imagination in Congress and the general public. Dams were not only costly, but they were, of necessity, far removed from the scene of potential flood-damage. A levee was easy to see and appreciate, because it stood near the point to be protected; a levee was in itself a dam — a dam perhaps a thousand miles long — but one which bore a clear relation to its purpose and one which could, moreover, be erected steadily and gradually. The cost of the levee system on the Lower Mississippi has been as great as the cost of all the federal dams in the Mississippi

Valley Basin, but it grew slowly and naturally throughout the passing generations of men and involved no elaborate technique and no special skill in its maintenance and operation. It was difficult to persuade the nation of the direct, practical relation between such a structure as Norris Dam on the Clinch River in Tennessee and the flood-levels at Baton Rouge in Louisiana. It was only in 1937, when the T.V.A. system of dams was responsible for saving the city of Cairo, Illinois, from the great flood on the Ohio River, that the general public and Congress were convinced of the solid facts which justified the new method of flood-control, by impounding the headwaters of our great navigable rivers.

PRACTICAL DECADES OF DAMS

It is a strange fact, which has hitherto eluded our social historians, that the era of big dam-building in the United States began only in the first decade of the present century. Whereas our levee system is at least as old as the middle of the eighteenth century, the first of the one hundred and sixty-odd important dams in the United States was completed in 1904 — Cheesman Dam on the South Platte River in Colorado, erected by the municipality of Denver for the purpose of regulating the flow of the river. Since then, dam after dam has been built, sometimes by power companies, more often by municipalities and irrigation districts, but increasingly and at last almost exclusively by the various agencies of the Federal Government.¹

¹ Here are some of our larger dams — state by state and river by river:

In *Alabama*: Martin Dam on the Tallapoosa, Wilson and Wheeler Dams on the Tennessee.

In *Arizona*: Horse Mesa Dam, Mormon Flat Dam, Stewart Mountain Dam and Roosevelt Dam on the Salt, Lake Pleasant Dam on the Aqua Fria, Coolidge Dam on the Gila, and Bartlett Dam on the Verde.

Step by step, in river basin after river basin, the American people, through their Government, moved in on the head-

In *Arizona-California*, Imperial Dam; in *Arizona-Nevada*, Boulder Dam, both on the Colorado.

In *California*: Salt Springs Dam on the North Fork of Mokelumne, Exchequer Dam on the Merced, Norris Dam on the San Gabriel, Shasta Dam on the Sacramento, Hetch Hetchy Dam on the Tuolumne, San Gabriel Number 1 and San Gabriel Number 2 on the river of that name, Pacolma Dam on the Pacolma, Pardee on the Mokelumne, Don Pedro Dam on the Tuolumne, Cushman Dam on the North Fork of Skokomish, Morena Dam on Cottonwood Creek, Lake Spaulding Dam on the South Yuba, Friant Dam on the San Joaquin, El Capitan on the San Diego, Copco Number 1 on the Klamath, Big Tujunga Number 1 on Big Tujunga Creek, Big Santa Anita on Big Santa Anita Creek, Bouquet Canyon on Bouquet Creek, Melones Dam on the Stanislaus, Stone Canyon Dam on the river of that name, Calaveras Dam on Calaveras Creek, Upper San Leandro on Upper San Leandro Creek, Barrett Dam on Cottonwood Creek, San Pablo Dam on San Pablo Creek, Lake Arrowhead Dam on Little Bear Creek, Cajalco Dam on the Offstream River, Mulholland Dam in Weld Canyon, Palmdale Dam in Little Rock Creek, Cajalco Dike in the Offstream, Lower San Fernando on the Dry Wash, Lafayette Dam on Lafayette Creek, Big Meadows Dam on the North Fork of Feather River, Stony Gorge Dam on Stony Creek, Lake Hodges Dam on San Dieguito River, Lower Otoy Dam on the Otoy, Big Dalton Dam on Big Dalton Creek, Bullard's Bar Dam on the North Fork of Uba, Coyote Dam on the Coyote River, Fairmont Dam on the Offstream, Florence Lake on the South Fork of the San Joaquin, Big Galtar Dam on the Santa Yñes, Huntington Lake Dam on Big Creek, Lake Loveland Dam on the Sweetwater, Priest Dam on Rattlesnake Creek, Shaver Lake Dam on Stevenson Creek.

In *California-Arizona*: Parker Dam on the Colorado River.

In *Colorado*: Cheesman Dam and Standley Lake Dam on the South Platte, Vallecito Dam on the Pine, Taylor Park Dam on the Taylor, Cherry Creek Dam on the Cherry Creek, Colorado River Dam and Granby Dam on the Colorado, Green Mountain Dam on the Blue River and Carter Lake Dam on the offstream River.

In *Georgia-Alabama*: Bartlett's Ferry Dam on the Chattahoochee.

In *Idaho*: Arrowrock Dam on the Boise, Salmon River Dam on the Salmon, Oakley Dam on the Goose Creek, American Falls Dam on the Snake, Black Canyon Dam on the Payette, Deadwood Dam on the Deadwood, and Twin Springs Dam on the North Fork of the Boise River.

In *Iowa-Illinois*: Keokuk Dam on the Mississippi River.

In *Kentucky*: Dix River Dam on the Dix.

In *Louisiana*: Bonnet Carré Dam on the Mississippi River.

In *Maine*: Wyman Dam on the Upper Kennebec.

In *Maryland*: Conowingo Dam on the Susquehanna and Prettyboy Dam on the Gunpowder River.

waters and instituted a system of continental flood-control based on dams upstream and dikes downstream, aided by

In Massachusetts: Cobble Mountain Dam on the Little, Wachusett Dam on the Nashua, Quabbin Dike Dam on the Swift, and Wachusett North Dike on the Offstream River.

In Michigan: Hardy Dam on the Muskegon.

In Missouri: Bagnell Dam on the Osage.

In Montana: Fort Peck Dam on the Missouri, Fresno Dam on the Milk, and Gibson Dam on the North Fork of the Sun River.

In New Jersey: Boonton Dam on the Rockaway.

In New Mexico: Conchas Dam on the South Canadian, Elephant Butte and Caballo Dams on the Rio Grande, Alamogordo Dam on the Pecos, and El Vado Dam on the Chama.

In New York: Kensico Dam on the Bronx, New Croton Dam on the Croton, Ashokan Dam on Esopus Creek, Beaver Kill Dam on Beaver Kill, Olive Bridge Dike on the Offstream, and Croton Falls Dam on the West Branch of the Croton.

In North Carolina: Santeeah Dam on the Tallassee, Yadkin Dam on the Yadkin, Cheoah Dam and Hywasee Dam on the Little Tennessee, Catawba Dam on the Catawba, Paddy Creek Dam on Paddy Creek, Linville Dam on the Linville, Pigeon River Dam on the Pigeon.

In Ohio: Englewood Dam on the Stillwater, Huffman Dam on the Mad River, Taylorsville Dam on the Miami, Lockington Dam on Laramie Creek, Bolivar Dam on Sandy Creek, and Mohawk Dam on the Walhunding.

In Oregon: Owyhee Dam on the Owyhee, Bull Run Dam on the Bull Run, and McKay Dam on McKay Creek.

In Oregon-Washington: Bonneville Dam on the Columbia.

In Pennsylvania: Safe Harbor Dam on the Susquehanna and Johnstown Dam on Salt Lick Creek.

In Rhode Island: Scituate Dam on the Pawtuxet.

In South Carolina: Saluda Dam on the Saluda River, and the Santee-Cooper Dam on the two rivers with those names.

In South Dakota: Bell Fourche Dam on Owl Creek.

In Tennessee: Pickwick Landing and Chickamauga Dams on the Tennessee, Calderwood Dam on the Little Tennessee, and Norris Dam on the Clinch River.

In Texas: Marshall Ford Dam and Buchanan Dam on the Colorado River, Eagle Mountain and Bridgeport Dam on West Fork of Trinity, Garza Dam on Elm Fork of Trinity, Red Bluff Dam on the Pecos, Wichita Falls Dam on the Wichita, and Medina Dam on the Medina.

In Utah: Echo Dam on the Weber, Pine View Dam on the Ogden and Deer Creek Dam on the Provo.

In Vermont: David Bridge Dam on the Deerfield, Wrightsville Dam on the North Fork of the Winooski, Somerset Dam on the Branch of the Deerfield, and Fifteen Mile Falls on the Connecticut River.

In Washington: Grand Coulee on the Columbia, Diablo Dam on the Skagit,

control of small waters through the C.C.C. reforestation and other activities designed to check and balance the waste of land and of water.

The key to the new technique was that tested by the Tennessee Valley Authority, where an entire river basin was brought under substantial control by a far-flung and inter-related control of water on the land and in the rivers. On the Tennessee River and its tributaries, a battery of dams held back and regulated the river: Pickwick Landing, Wilson Dam, Wheeler Dam, Guntersville, Watts Bar, Chickamauga, Norris Dam, and Hywasee, with the whole to be regulated by the great Kentucky Dam near Paducah, where the Tennessee joins the Ohio River in its last sweep towards the Mississippi.

Here became apparent the continental economics of a federal system of flood-control. The T.V.A. system was intended to reduce the flood-height by two feet in the alluvial

Ariel Dam on the Lewis, Shannon Dam on the Baker, Long Lake Dam on the Spokane, Tieton Dam on the Tieton, Glines Canyon Dam on the Elway, Cle Elum Dam on the Cle Elum, and Rock Island Dam on the Columbia River.

In *West Virginia*: Tygart River Dam on the Tygart.

In *Wyoming*: Shoshone Dam on the Shoshone, Seminoe, Pathfinder and Alcova Dams on the North Platte River, and Jackson Lake Dam on the South Fork of the Snake.

These are all big dams, listed and described as such by the Department of the Interior. The smallest of them is 24 feet high and the highest is 727 feet high; the narrowest is 350 feet across the crest, the broadest is over two miles wide. The largest volume listed is 100,000,000 cubic yards of fill, the smallest barely 16,000. What is more significant is the accelerated growth of this system of dams — all of which, whatever their other economic purposes, contribute directly to the control of floods. Only three of these dams were built in the first decade 1910 to 1919. Fifty-six were completed during the twenties. The rest — approximately seventy dams, including the largest and most ambitious — were constructed in the thirties, chiefly under the impulse and direction of the accelerated national conservation movement which began in 1933.

valley of the Mississippi River. The investment value of this service was reckoned at as much as \$380,000,000.¹

No better illustration of the effect of the size of North America and its problems upon Old-World institutions could

¹ This calculation was based on the following survey of annual flood-damage, capitalized on orthodox standards of investment value:

1. Cities:

Cairo.....	\$1,000,000	
Memphis.....	2,000,000	
Helena.....	200,000	
Greenville.....	500,000	
Thirty small towns.....	<u>3,000,000</u>	\$6,700,000

2. Railroads..... 10,550,000

3. Highways..... 1,500,000

4. Unprotected marginal areas — annual farm damages:

Kentucky and Tennessee.....	\$4,035,000	
Mississippi and Louisiana.....	<u>2,147,000</u>	6,182,000

5. Backwater areas:

St. Francis area.....	6,390,000	
White-Arkansas area.....	6,475,000	
Yazoo area.....	10,711,000	
Red River area.....	<u>8,664,000</u>	32,240,000

6. Floodways:

Bird's Point-New Madrid.....	2,990,000	
Eudora.....	4,823,000	
Atchafalaya.....	<u>3,491,000</u>	11,304,000

7. Reduced levee maintenance..... 5,290,000

8. Reduced seepage damages..... 7,612,000

9. Protected agricultural area — Benefits to protected agricultural land due to more safety, estimated increased market value at \$25 per acre on 12,000,000 acres.....

	<u>300,000,000</u>	
Grand total.....		\$381,378,000

Whatever the margin of error in this estimate, which was admittedly prepared as an argument to justify the investment of \$115,000,000 in the Kentucky Dam at Gilbertsville, the substance of economic merit is clearly on the side of the T.V.A. officials in their analysis of the national investment and public utility of flood-control. It was on the basis of these and similar direct and indirect values created by dams that the Government justified the tremendous national investment in the system of great dams by which the people were enabled to regulate the flow of the great rivers of North America.

be given than this. Floods were as old as Noah and human efforts to deal with their effects were as old as the Pharaohs, but there had never been a full test of the money economy of the American people by the force of natural hydraulics. It was economically necessary and socially desirable that the Government should control the floods on our great rivers, but we had no theory of public law or social doctrine by which it was possible to justify practical measures on a scale which would be effective. Eventually, in the third decade of the twentieth century, after we had been working on flood-control for at least sixty years, we found the formula by which we could convince ourselves that, even in terms of money and taxes, it was 'bad business' to let our rivers waste our farms and inundate our cities and drive our people huddling to the Army soup-kitchens and the Red Cross for relief.

The discovery of this formula means that in the future we can work out the financial details of the most ambitious scheme for river-control ever evolved, and that millions of future Americans may inherit a land made reasonably safe from social dislocation and individual disaster due to the vagaries of the most tremendous river system on the face of the globe.

CHAPTER V

NAVIGATION

TO REGULATE COMMERCE AMONG THE SEVERAL STATES

HERE is the way we found the key to this unimagined power to control our national destiny. From the day of the early settlements on the continent of North America, the rivers and tidal estuaries were the most important means available for the transport of people and goods. The valley of the St. Lawrence, the tidewater region of Maryland and Virginia, the early canals — the Erie and the Chesapeake and Ohio — and the Mississippi itself, with its fast packets and its river-lore, repeated at first the ancient usage of the rivers of Europe.

So it seemed that there was nothing abnormal in giving to the Federal Government the constitutional powers over navigation which had previously resided in the European monarchies. It was obvious that the use of the rivers could not be controlled by local sovereignties, as the robber-barons of Germany had once controlled the Rhine, and the early pressure of the pioneers against the French and the Spanish was evidence of an instinct to free navigation from political obstacles. What was abnormal was the size of the river system itself which was thus casually entrusted to the National Government and, by the latter, to the Army Corps of Engineers.

This grant of power became one of the greatest ever

accorded to any constitutional government because of the thousands of miles of seacoast, hundreds of harbors, thousands of miles of navigable rivers, hundreds of rivers, tributaries, and streams — all of which affected navigation and only a few of which passed through but one of the forty-eight states: all these waterways combined to create, out of geographical necessity, the greatest field for practical development of political authority ever turned over to a central authority.

For over a century this fact was obscured by the tremendous human surge of our people from east to west. This tide of migration did not follow the river valleys, but rolled across the mountains. The movement of goods which paralleled it of necessity followed the same course, so it happened that the railroad became the chief economic agency of the American people for nearly a hundred years.

After the Civil War, an enterprising Congress devised the annual Rivers and Harbors Bill as a means for spending federal funds where they would do the most good politically. But the system was long little more than a mechanism for graft: goods and people continued to move by rail, and river commerce dried up. It was only after a long series of political struggles between the Western farmers and the railway companies that attention was given to the rivers as a 'yardstick' for freight rates. By then the railways had practically killed river transportation and had begun to charge monopolistic prices. Out of the economic conflicts of the last fifty years emerged a new return to the old method of using the rivers to move bulky freight.

KEEPING THE MISSISSIPPI NAVIGABLE

From first to last the Government has spent about three

billion dollars on improving the navigation of the United States — half of it within the last ten years. The chief monument to this program is the improvement of the upper Mississippi River, by constructing a nine-foot channel, with twenty-six locks and dams, between Minneapolis and the junction of the Mississippi and the Missouri, at an estimated cost of \$170,000,000. This project is now about eighty-five per cent completed and should be finished within three or four more years.

The work has been going on steadily since before the World War of 1914-18. The great barrier at Keokuk was completed in 1913. The last eight years have witnessed the completion of a score of dams and locks on the Mississippi. Year in and year out, during the ice-free months great Army dredges have worked away at the river-bed, deepening and straightening the channel. Many men now high in Government service have won their reputations as organizers and administrators by the work they have done on this section of the Mississippi. For example, Brigadier General Philip H. Fleming is known to the Army, not as the man selected by President Roosevelt to administer the Wages and Hours Act, but as the man who succeeded in dredging Mississippi river-bottom at a lower cost per cubic yard than any other man in the history of the Corps of Engineers.

This enterprise, which is only one of several hundred projects under federal operation, amounts to digging a 650-mile canal from the heart of the wheat belt into the lower Mississippi; and this 650-mile stretch is only part of the twenty-seven thousand miles of inland waterways which now link the Gulf of Mexico to the Great Lakes and the Mississippi Basin to the Atlantic Ocean.

SIX HUNDRED MILLION TONS OF RIVER-BORNE FREIGHT

What this means in terms of continental economics is almost immeasurable. For example, on the Tennessee River, a nine-foot channel for navigation along the 650-mile stretch from the Ohio River to Knoxville, Tennessee, has been found to represent annual savings in freight rates of about ten or twelve million dollars a year. Assuming that the cost of money to the Federal Government is about three per cent, this saving can be capitalized at a figure of about four hundred million dollars — a sum which is equal to the entire capital investment by the Tennessee Valley Authority. This figure represents the movement of about ten million tons of freight a year. With federal waterways already carrying about six hundred million tons of freight a year, the social value of the Government's investment in internal navigation amounts to sixty times as much as its investment in Tennessee River Navigation, or about twenty-four billion dollars. Such a figure would not include the strategic values of such an enterprise as the Panama Canal, but is simply an attempt to point out that the Government has added tremendously to the national wealth by investing a few billion dollars in navigation.

What this means to the average American family is again almost beyond computation. It means that certain goods, such as paint, gasoline, cement, lumber, iron, and coal, can be purchased more cheaply; it means that other things, such as corn, cotton, wheat, pork, fruit, and vegetables, can be sold at a better price. It makes the difference between having and not having a good many of the necessities of life for a good many people. It means that all freight rates can be kept within economic reason. It means that, with the exception of perishable or valuable freight, goods move easily

and cheaply, instead of expensively. It means relocation of industries, redistribution of opportunity. It also means more effective defense.

OUR RIVERS AS A DEFENSE ASSET

This is perhaps its greatest single justification in the present state of the world. It is not too difficult for an air-bomber to hit a junction or a railway line, and thus to tie up transportation for a considerable period. But it is not easy to blow up a river; a lock is a very small target to hit from the air; a sunken barge can be dynamited out of the way of traffic. Moreover, defense places a heavy strain on fuel-supplies and rolling-stock. Without waterways and barges, especially for the transport of heavy freight, we should find it difficult to meet the tremendous strain of defense economics.

FLORIDA SHIP CANAL

That is what gives decisive importance to such projects as the Florida Ship Canal and the St. Lawrence Deep-Sea Waterway. These measures were originally defeated in Congress, as a result of a combination of partisan opposition, desire for budgeting economy, doubt as to practicability, and fear of economic dislocation. The Florida Ship Canal was designed, by digging a canal across Florida, to link up our two separate intracoastal protected waterways — from Boston, Massachusetts, to Jacksonville, Florida, and from Pensacola, Florida, to Corpus Christi, Texas. This would enable ships to avoid the dangerous reefs and storms of the Florida Channel and the possible submarine, air-bomber, and mine dangers of war. It was halted, however, by a powerful anti-spending lobby at Washington.

IN NINETEEN-FORTY THERE SHOULD HAVE BEEN A ST. LAWRENCE WATERWAY

The St. Lawrence Waterway was still more urgent. Here the plan was to construct a dam for power and navigation purposes on the international section of the St. Lawrence River. Over 1,600,000 kilowatts of power would be generated, to meet the power shortage forecast for northern New York in 1942, and an open channel twenty-seven feet deep, with suitable canal facilities around Niagara Falls, would make it possible for ocean-going steamers to serve Duluth, Milwaukee, Chicago, Detroit, Cleveland, and Buffalo. The total estimated cost to the United States Government would be less than three hundred million dollars; the hundred million tons of shipping on the Great Lakes would become a part of world trade, and about fifteen hundred miles of 'seacoast' would be added to the United States.

In 1934, however, the United States Senate, as a result of concerted lobbying by railroads, coal, and power interests, refused to ratify the treaty with Canada for this waterway development. The railroads did not wish to see any part of their business in carrying freight diverted to lake shipping. The National Coal Association saw no need for the additional hydro-electric power. The private utilities opposed the federal power development, and the big commercial and navigation interests of New York City and other Northeastern ports had little sympathy for a plan which would reduce their importance as centers for transshipment. The irony of the Senate's refusal was that the period needed to complete the project — six years — would have ended by 1940 had the original treaty been ratified, and the United States would have faced the great national defense emergency with the indispensable facilities for making the St. Lawrence River a

'pistol pointed at the heart of Hitler's New Europe.' The industries of Detroit and Cleveland, Chicago and the Mohawk Valley, the wheat and ore of Michigan and Minnesota, the economic center of the North American Continent, would have been equipped with the power and the means for transportation that would have made Hitler's Continental organization sink to the level of the Ethiopian defense system. All this was lost by the short-sighted and selfish pressures which refused to engage in the art of practical foresight.

Yet even this monumental blunder is evidence of the scale of our opportunities. Nowhere else on the planet can men achieve so much by so relatively small effort. Bit by bit we are rising to meet the challenge to our imagination, and in retrospect it will be found that the very hesitancies with which we approached our opportunities were necessary stages in the growth of our ability to take advantage of them.

UNITED STATES, A RIVER POWER

On all our big rivers today, and on their tributaries, including those which have never yet seen anything larger than a rowboat, the power of the Federal Government is supreme. We are becoming, without knowing it, neither a land-power, as is Germany, nor a sea-power, as is England, but a river-power, to an extent matched by no other nation on the face of the globe. Transportation is civilization, and we are the only great nation in the world which has within its borders a system of water transportation on the grand imperial scale. Both for defense, for commerce and for orderly civilization, this is the decisive fact about our country, and everywhere throughout the continent it is possible to see evidences of our development into a riverine nation. So, in retrospect, the truth about America is best expressed

by Abe Lincoln's rafting down to New Orleans over a century ago, by Mark Twain in the pilot-house of a Mississippi packet and by the saga of Vicksburg in the Civil War.

CHAPTER VI

RECLAMATION

A QUIET METHOD OF ANNEXATION

THE second key which unlocked the future to the American people was in the waterless lands of the Far West. There, faced with a scarcity of rainfall and some of the most fertile soil in America, we developed the massive technique of large-scale reclamation and irrigation which later enabled us to move our civilization into the power age.

This was the distinctive contribution of Theodore Roosevelt, who had dramatized the Wild West as a young man and who endeavored, as President, to deal with the problems of the Western regions in terms of themselves. In so doing, he was helped by the fact that the greater part of the West was still in the national domain and because in the West there was a tradition of cooperation between the people and the Federal Government. The regions where the first Roosevelt launched the reclamation movement were also so remote from the populous East that no serious social apprehensions were aroused by what seemed to be simply the extension of the principle of the 'pork-barrel,' similar to that of the Rivers and Harbors Bill, to securely Republican territory. Thanks to these favoring circumstances, the technique of national administration of our conter resources got a long head-start, and the results were tremendous. For example, if the Government of the United States had

deliberately annexed as much territory as is contained in the state of Maine — or even as much as is contained in the state of Delaware — the people of the United States would have taken notice. Yet in the last thirty-five years, through the Bureau of Reclamation, we have added to our agricultural empire more fertile land than exists in all New England, while today in the desert of eastern Washington we are bringing under cultivation at a single stroke an area of land which is two thirds the size of the sovereign state of Delaware. And all this has been achieved with less fanfare than attended the purchase of the Virgin Islands.

STEPS ONE, TWO, THREE, AND FOUR

Historically, this process began with the passage of the Reclamation Act in 1902. Practically, it began in 1906, when the first water was made available to settlers on irrigated land. Politically, it began when Teddy Roosevelt led his Rough Riders up San Juan Hill. And today we are beginning all over again, this time collectively.

The roots of great human enterprises are often as important as the enterprises themselves. The one year of 1898 contains the key to what was later to be known variously as the 'New Freedom,' the 'New Nationalism,' and the 'New Deal.' In that year, in reaction to the war with Spain, the real barriers of sectionalism broke down. General Joe Wheeler in Congress secured the passage of the first bill for generating power at Muscle Shoals — the origin of the T.V.A. — and Theodore Roosevelt advertised the West's coming of age by his recruiting dudes and cowboys into the famous unit of mounted infantry which won the glory of the Cuban campaign. Two years later T. R. was elected Vice-President. By 1901, he had inherited the Presidency from

the murdered McKinley and had launched the program for conservation and reclamation which is his great contribution to our national life.

THE DESERT COULD BLOOM LIKE A ROSE

For it is a fact that, despite our great rivers and lakes, much of the West is without sufficient water. West of the hundredth meridian, the rainfall ranges from twenty down to three inches per year, until you reach the western slopes of the Cascade Range in the Pacific Northwest. More important than this is the fact that the rainfall varies sharply with the weather-cycle. Sufficient rainfall in the seven fat years tempts farmers and land speculators into semi-arid lands. The seven lean years reduce them to bankruptcy and cut them loose from the parched soil as homeless wanderers. Long before T. R. and Gifford Pinchot, the Mormons in Utah had demonstrated that the Great American Desert, by the use of scientific irrigation, could be made to blossom like the rose. Brigham Young at Salt Lake had established the state of Deseret because he believed that the land was too poor to arouse the cupidity of the 'Gentiles' who had driven the Latter-Day Saints from Missouri and Illinois. It is a commentary on American social thought that it took the nation fifty years to accept the lessons of the Mormon experiment and to apply the practical measures needed to reclaim the deserts of the West.

This was because our political theory refused to recognize the necessity for public investment in strategic economic enterprise. Here again it was the size of the problem which delayed action. The Mormons dealt with small and manageable streams in northern Utah. National reclamation required big dams on big streams. This meant that engineer-

ing techniques must be developed and political theory expanded before the American people were prepared to deal with the problem. The progress made was necessarily slow, yet, between 1906 and 1941, forty-six irrigation projects were completed, twenty-two others were under construction, and nine more had been authorized — all of them set up in terms which would repay their costs within a period of fifty years. Nine million people — about seven per cent of our total population — in sixteen different states are now living in the areas served by reclamation: a monument to economic statesmanship and to the resourcefulness of the American people, as impressive as any war.

TRIAL AT BOULDER DAM

Since 1930, moreover, a new and accelerated movement has appeared in this slow process of conquering territories by conserving water. This was due to the development of a new technique at Boulder Dam — the so-called 'multi-purpose dam' — which made possible larger and more ambitious projects. The old type of reclamation dam was designed almost exclusively for irrigation purposes, which meant that the cost of repayment fell entirely upon the settlers in the irrigation districts. As a result of the terrible agricultural depression of the nineteen-twenties, their solvency was destroyed and their future ability to pay was undermined by economic insecurity. But at Boulder Dam, not only irrigation but flood-control and hydro-electric power were involved. These were substantial offsets to the tremendous cost of construction — flood-control establishing the stability of economic values downstream, and power production linking the project with the profits of industry. The way was thus clear for the most exciting technical ad-

venture in human history — the Grand Coulee project in eastern Washington.

DAMMING THE GRAND COULEE

Many thousands of years ago, the glaciers butted slowly south from the Canadian Rockies and dammed the Columbia River at a point near where the Coulee Dam is being completed. The waters of the river burst over the rock-rim to the south and fought their way across the lava plateau until they finally rejoined the great river. In the course of the centuries, the river cut deep gorges in the rock, the deepest of them being known as the Grand Coulee. Then with the slow clock-tick of the centuries the glaciers retreated, the river returned to its ancient channel, leaving the coulees stranded as monuments to the savage fury of the waters. By the time the covered wagons of the pioneers reached the Pacific Northwest, the land of the lava plateau was virtual desert, fit only for a little light grazing, with occasional patches of land suitable for dry-farming.

After the successful completion of Boulder Dam on the Colorado, the Grand Coulee project became feasible. Equipment and experience had been amassed, and the very daring and grandeur of the scheme recommended it to an American people who were seeking wider horizons and more dynamic adventures. The idea was to dam the river so as to raise the water-level as far north as the Canadian border, to use part of the power generated at the Grand Coulee Dam to pump the water into the dry bed of the prehistoric river gorge, to build dams at both ends of the gorge and store the pumped water for irrigation purposes, and thus to reclaim for agriculture 1,200,000 acres of fertile land. As the farmers were being driven off their lands in the Dust-Bowl states

east of the Rockies, people were available to cultivate this new land under a scheme for mass-settlement. The vast surplus of power at Grand Coulee would, moreover, develop industries for the treatment of low-grade phosphate ore and the manufacture of magnesium metal and aluminum for use in airplane and other machine construction. The whole would be amortized within fifty years.

THE LARGEST THING EVER BUILT BY MAN

This recital fails to give an inkling of the immense labor to be achieved. The dam itself will be three times as large as the Great Pyramid of Cheops, which, until Boulder Dam, was the largest thing ever built by man at any one spot. The problem is to raise a small ocean of water as high as the Empire State Building.

The dam itself will raise the water of the Columbia — which, incidentally, is the second largest river in the United States — about three hundred and fifty-five feet. The balance of the distance will be met by pumping, pumping on a scale to fill and maintain a lake covering forty-three square miles of the bed of the Grand Coulee. This water will, in turn, be used to irrigate an area of five thousand square miles, which will accommodate about fifteen thousand farm families in a zone which can grow hay, grain, beans, peas, fruit, and vegetables in profusion.

A NEW STATE OF DELAWARE

This enterprise means that, within the period of ten years, by the expenditure of less money than is involved in a single month of warfare or defense preparation, the American people will have added to the useful area of the United

States as much fertile land as is to be found in Delaware or Nevada, and will, moreover, have created a Niagara of industrial power with which to effect an economic revolution in the Pacific Northwest. And all this has been done within half a human generation by the application of brains, machinery, credit, and energy to a single massive piece of practical engineering.¹

Thus the application of power to irrigation projects has created an almost new program of reclamation by the American people. Since Boulder Dam and Grand Coulee, the Government has begun the installation of hydro-electric power at all important reclamation projects. With the completion of the present program, over four million kilowatts of hydro-electric energy will be thus developed — an amount which is almost double the entire hydro-electric power capacity of the seventeen Western states in 1939.² All this in addition to thousands of miles of canals and ditches, thousands of bridges and innumerable other structures for the use of water in reclaiming the fertile volcanic soil of the states west of the hundredth meridian.

¹Incidentally, it is of interest to point out that the first multi-purpose hydraulic enterprise undertaken by the American people was the construction of the Panama Canal. After its completion, part of the total cost was assessed against national defense and the remainder — for navigation — was made the basis of the canal tolls. Just as the private utilities opposed the rate policy of the T.V.A., so did the transcontinental railways oppose the canal-tolls policy. The result, in each case, was that the rates and tolls were left at a higher level than was strictly economic — since the principle of social investment would justify the T.V.A. in giving away its power and the Government in allowing toll-free passage of the Panama Canal to American-flag ships in the intercoastal trade.

²The states thus served are: North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Texas, New Mexico, Arizona, Colorado, Utah, Nevada, Wyoming, Montana, Idaho, Washington, Oregon and California.

ALWAYS FAIR-WEATHER FARMERS

What this means in human life and happiness is almost beyond calculation. Farming in irrigated lands is farming which is independent of the weather hazards. Farmers who have seen their crops withered by drought or rotted by unseasonable rain, who have had their stock die of thirst or insufficient pasture and have been driven from their homes by dust or flood, can operate their lands on a factory basis. With ample low-cost power and with provision against excessive landholdings, these reclamation communities state the premise for a new type of agrarian civilization.

In this type of civilization, cooperation is the first rule. Without public investment in the dams and dynamos, the whole enterprise would be impossible. Technical centralization and supervision are indispensable, but lack the element of economic feudalism which has wasted other regions and has reduced some social groups to the status of peons or migrants. Such paternalism as exists is technical rather than political, and suggests that here in America we may be able to produce a culture which will be both as stable as that of Egypt under the Pharaohs and as dynamic as a Detroit assembly line.

CHAPTER VII

POWER

THIRTEEN HUNDRED MILLIONS FOR POWER

THE final key to a dynamic America came from the power of the rivers, embodying for America an industrial civilization independent of fuel.

The invention of the dynamo and the development of electricity completed the pattern of our national destiny. The fall of water on our great rivers, when utilized by turbines and harnessed to dynamos, offered an inexhaustible supply of energy for the generation of electric power. In the early stages of this tremendous development the chief consuming centers — the industrial cities — were not always within the practical range of hydro-electric transmission and the first important use of the dynamo came from steam generators which used coal.

For this reason, and for others, development of hydro-electric power in the United States was not seriously undertaken by private enterprise. Only in the last twenty years have we developed the techniques for long-range transportation of electric energy, and by that time the dimensions of the task had outgrown the resources of private enterprise. It was one thing to construct a power-dam on a small stream within a few miles of a concentrated market. It was an entirely different proposition to dam one of our larger rivers and send a torrent of electric power over a distance of two

or three hundred miles. The first lay well within the powers of private investment; the second called for the employment of the financial energies of the entire continent.

As evidence of the need for federal finance in this field is the cost of the big dams recently constructed in the United States:

Boulder, to date: \$82,805,431 (ultimate \$165,000,000; including dam, power plant, All-American Canal).

Grand Coulee: \$116,855,089 (ultimately \$400,000,000).

T.V.A. System (all of it): \$500,000,000.

Bonneville: \$115,000,000 (\$75,000,000 for transmission and plant; \$40,000,000 for navigation and power).

Fort Peck (in Montana): about \$123,000,000 (the largest earth-fill dam in the world).

FEDERAL CONTROL OF RIVERS VERSUS PRIVATE EXPLOITATION

Even if there had been no issue of financial ability, there remained the question of federal jurisdiction over navigable streams and the further matter of American tradition to be taken into account.

Notwithstanding the social-investment values which could be proved to exist in national control of floods and improvement of navigation under federal authority, the United States was predominantly an economy of private investment. That means that national expenditures for the purpose of social investment must be financed by taxation levied against the proceeds of private enterprise or by borrowings which increased an already large public debt that was in turn supported by taxes on private enterprise. While social investment increased the values against which future taxation could be levied, it could not prevent the increase in the totals

of public indebtedness and could not prevent future increases in taxation.

For these reasons, there was a steady and natural resistance to these federal improvements on the part of those who paid the taxes and whose interests were affected by the public debt. Unless there had been found some immediate economic benefits, the profits of which would accrue directly to the federal Treasury, the cost of building the great dams in this dam-building era of American history would have been prohibitive. The alternative would have been to devise a collective-security economy, under which such general public investments were normal, private investments subsidiary, and for this neither private enterprise, public opinion, nor the Government itself was prepared.

It was a paradox of the nineteen-thirties that the very assets which could reconcile a program of social investment in national control of water proved to be the chief obstacle to the success of such a program. The power in the rivers which the Government desired to control for purposes of irrigation, navigation, and flood-control constituted a great natural resource whose control was vested in the Federal Government by the Constitution of the United States. For many years this resource had been treated as were other parts of the national domain — as something which was properly subject to exploitation only by private initiative. As the electric industry developed, water-power sites were turned over under franchise to private utility corporations by both the states and the Federal Government. So developed, they promoted industry and other forms of private and public interests, and, despite the arguments which favored public ownership, the need for public ownership did not arise in such form as to demand a new approach to the problem until well after the turn of the century. In

this way, an immense private investment was created in hydro-electric energy as an adjunct to steam-power plants, and there appeared to be no theoretical reason for advancing political authority beyond the mild regulation embodied in grants of franchises to privately owned utility corporations. This private investment in turn created its own scale of values — including rates and stock quotations — which represented the normal American process of permitting private enterprise to discount the exploitable wealth of the nation at its own risk.

TOO BIG FOR PRIVATE BUSINESS

What altered the governmental approach to the power issue was the matter of size, the element which has steadily modified all American institutions since Jamestown and Plymouth Rock. The construction of big dams is a long, difficult, and very expensive process. If it was beyond the normal purposes of the Federal Government to undertake such dams as a social investment, it was clearly beyond the financial resources of private enterprise to build the same dams for power generation, making proper provision for navigation and flood-control. As a matter of fact, it was beyond the power of private enterprise to finance even that portion of the great dams which was properly assignable to power generation. For over sixteen years, the Federal Government endeavored continuously to obtain private capital for the development of power at Muscle Shoals on the Tennessee River, but without success. Only under the National Defense Act of 1916 was it finally decided to build the first federal power-dam at Muscle Shoals — Wilson Dam — and that was primarily for the manufacture of nitrates needed to make explosives through the use of elec-

tricity in fixing nitrogen from the atmosphere. Even so, after the war, when the Republican Party returned to power, an effort was made to dispose of this federal power development to private enterprise, and failed chiefly because private enterprise was unable or unwilling to offer enough money to justify the transaction.

So an impasse had been reached. Private enterprise lacked the financial resources to undertake the major hydro-electric projects required for control of our great rivers. The Government was unable to undertake the great projects for navigation and flood-control and irrigation without the benefit of hydro-electric generation. Yet the private investment in existing electric utilities was politically able to defer Government development and operation of hydro-electric projects, as a matter both of principle and equity. For ten years the situation remained at a standstill, until in 1933 the major decision was taken — in the Act creating the Tennessee Valley Authority — to combine both functions: power generation and river-control. By then the private utilities had been discredited by the financial disasters of the years following 1929, and by a general decline in prices and in national income which made their rates seem unreasonable and uneconomic. Thus it became politically possible as well as economically desirable to use low-priced federally developed electric power to help defray the costs of building the great dams.

In the process, considerable emotional violence was inflicted upon the opinions and beliefs of the American people. Private electric rates had been high because private investment was largely speculative, and because the earlier refusal of the banks to finance the utilities had compelled these enterprises to create their own capital out of current income. Tremendous technical progress had been made under this

system, and it was only because of the requirements imposed on the American people by the size of the rivers which they had to control that the Government was compelled to move in. Even so, what the Government did was against its own will and against that of the business interests involved, as evidenced by every important national decision taken between 1898, when the first bill for Muscle Shoals power was introduced into Congress, and the Boulder Dam Bill of 1928, which finally established the Government in the profitable business of producing hydro-electric energy for commercial purposes.

THE BATTLE OF T.V.A.

The institution of the T.V.A. marked the first realistic effort to deal with a water problem which had admittedly outstripped the abilities of private enterprise. The valley of the Tennessee River was poor and backward, and the people of the region had become a positive drag on the national progress. Yet in the fall of water on the river there was an immense natural resource which, efficiently developed, could convert the state of Tennessee into a second Ruhr or an American Sweden. The land was rich in forests, phosphates, and other useful products. The potential hydro-electric energy was enormous. The private utilities had been unable to develop this energy. And there was a large federal investment at stake in the form of Wilson Dam at Muscle Shoals.

During the last seven years, this relatively small tributary of the Mississippi River system has been the scene of an impressive experiment in applied hydraulics. A series of ten dams, many of them already completed, has begun to create navigation and promote flood-control. Wilson Dam,

Norris Dam, Wheeler Dam, Chickamauga Dam, the Kentucky Dam — all these are involved in an ambitious attempt to combine the functions of flood-control and regulation of navigation with the profitable generation of electric power. The Valley has been a *cause célèbre* in American political history: the effort of private utilities, under the leadership of the Commonwealth and Southern public-utility holding company, to prevent the Government from developing or selling this power, an effort which helped to make the spokesman for Commonwealth and Southern, Mr. Wendell L. Willkie, the opposition candidate for the Presidency of the United States in 1940. Every device known to the ingenious minds of corporation lawyers was employed to block the wider distribution of low-priced electric energy in the region served by the T.V.A. Local elections, state elections, one national election, and innumerable lawsuits were involved in the conflict, which ended in complete and righteous victory for the Government.

THE PROOF OF T.V.A.

In the course of this struggle, three important contributions to the technique of power distribution were made by the Government. The first was the resale contract, by which agencies which purchased power wholesale were compelled to retail the power at prescribed low rates. The second was the policy which gave publicly owned utilities systems and cooperatives the preference in disposing of power. The third was the 'postage-stamp' idea by which rates were kept uniform within an area, rather than varying according to the distance from the point of generation. All these combined to bring down the cost of electricity all over the Southeast and to increase its use. It had long been a rule of private

business that the way to expand markets is to lower prices, but it remained for the Government to show that the same principle applied to electric energy.

The result was a social and economic revolution in the region served by the T.V.A. In communities still living close to the tallow candle and the hand-loom, the benefits of modern technology appeared almost overnight. Cheap electricity meant more than low electric-light bills. It meant light where there had been none. It meant refrigeration. It meant pumps. It meant washing-machines and electric ranges. It meant sanitation. It meant plumbing. It meant sterilizers. It meant water-heaters. It meant lathes and looms. It meant industries. When the power age came to the primitive hills of eastern Tennessee it meant the end of the social apathy and moral bigotry which had made 'hill-billy' a term of derision and 'monkey trial' an indictment of a section. It meant also national defense and biological regeneration. It meant power for aluminum, power for arms factories. It meant better diet. It meant reforestation, soil conservation, general betterment.

Social reformers grew starry-eyed and social conservatives grew apoplectic as they considered this new phenomenon, yet the dams were built, the power-lines walked across the ridges, the towns and the lonely farmhouses lighted up at night, and progress came to the hills.

POWER PAYS FOR FLOOD-CONTROL, RECLAMATION, AND IMPROVED NAVIGATION

For the Government had shown that it was economically possible to use the commercial assets of power construction not only to offset the cost of social measures, such as flood-control, but to improve the social and economic welfare of

the people of an entire section of the country. Despite the anger of the conservatives, it was not possible to prove that the vested interests were seriously injured in the process. By 1940, barely one fifth of all hydro-electric capacity was publicly owned, and this was in turn only a small part of all electrical generating equipment. The real issue was the rates charged to consumers, and yet here again the Government charged very little less for wholesale power than the private utilities had charged. Undue distributing profits were simply eliminated from the picture, and with this the private producers could have no legitimate quarrel.

Having found it possible to charge off a valuable investment in power generation against the total cost of river regulation, the Federal Government moved rapidly into the field left vacant by individual and corporate enterprise. It became standard practice to construct multiple-use dams — colossally expensive structures whose total cost could appropriately be charged off against the several economic purposes which they served — reclamation of arid lands by irrigation, reduction of freight costs by improved navigation, prevention of damage by floods, and large-scale distribution of low-priced power to create new industrial assets as well as better standards of living. As a minor illustration of the latter purpose, it is enough to cite the use of electric refrigeration on farms or in quick-freezing plants to prevent the waste of perishable food.

The first major step in this direction had already been taken under the administrations of Presidents Coolidge and Hoover. In 1928, Congress passed the Swing-Johnson Bill authorizing the Boulder Canyon Project; by 1930, the measure had been ratified by six of the seven states involved in the lower Colorado River region, and in 1931 construction was begun. Five years later, the Boulder Dam was com-

pleted, and by the fall of 1938 the project was generating over 130,000,000 kilowatt hours under contracts which were designed to return its entire cost and create a surplus inside fifty years, from its potential development of 1,835,000 horsepower of hydro-electric energy.

Somewhat similar to the T.V.A. were the projects of Bonneville and Grand Coulee on the Columbia River, later merged in a single federal power administration. Construction of Bonneville Dam was begun in 1933 and the dam was completed four years later. By 1938, generators had been installed, with a capacity of 86,400 kilowatts, as against an ultimate capacity of 504,000 kilowatts. As in the T.V.A. area, contracts for Bonneville power regulated resale rates to the public, and as the industrial wealth of the Pacific Northwest region was developed on the basis of this low-priced energy, it was calculated that the power-cost of the Bonneville Project would be repaid within fifty years.

Grand Coulee Dam, in distinction to Bonneville, where navigation was the principal by-product, was primarily a power-and-irrigation project. Grand Coulee was the most ambitious piece of human engineering since the construction of the Great Wall of China. Work on the dam began in the winter of 1933-34. Plans call for a power-plant capacity of 1,890,000 kilowatts, with an estimated annual output of over 12,500,000,000 kilowatt hours. By sale of this power and payments for irrigation, the Government expects this dam to pay for itself within fifty years.

POWER PROJECTS IN PROSPECT

Similar in scope, cost, and daring is the plan for power development on the international section of the St. Lawrence River, in connection with the Government's purpose to

facilitate navigation of the Great Lakes by seagoing vessels. This is also a national-defense project, in the same sense that Wilson Dam was originally a national-defense project, with the purpose of creating energy and facilities for industrial and maritime defense in portions of the continent out of the range of modern aerial bombers. The electric energy which will be generated on the St. Lawrence is estimated at over 2,250,000 horsepower — enough power to supply a whole new economy in the American Northeast.

In this connection, mention should be made of the ill-fated experiment with tidal power at Passamaquoddy. The intention of the Government was to utilize the great rise and fall of the famous tides in the Bay of Fundy to generate electric energy. Work of an exploratory nature was begun, under the War Department, in 1935, using \$10,000,000 of relief funds. Experimental work disclosed that, by joint Canadian-American tidal-power projects, it would be possible to develop more than 3,000,000,000 kilowatt hours of energy from this source. Before the Government could proceed, however, beyond the initial stages of the work, Congress raised an objection to the whole idea, which has been deferred until the development of a more favorable climate of opinion for official imagination.

THE PRODUCTION OF POWER AS A PROFITABLE DEVELOPMENT OF PUBLIC DOMAIN

Whatever may be the ultimate destiny of the American people, in the last ten years the Government has contributed powerfully to the creation of a civilization whose mere ruins will astonish and impress posterity. It has done so, however, in response to the normal needs of the people of our time and the clear demands of national defense, in default of

any volume of private enterprise sufficient to fill these needs and meet these demands. In so doing, it has laid its hands upon a type of public domain and a form of public administration which assures to the people the wealth with which to pay the great costs of restraining and developing the water resources of the continent. When all is said and done, the greatest single economic contribution to the real wealth and real income of the American people during the last ten years is that which has been made by the Federal Government through public policies and social investments in the development of our immense resources in water-power.

PART IV

THE PEOPLE

CHAPTER I

THE END OF THE BUSINESS ERA

BUSINESS AND INDUSTRY 'SHOT UP' HAND-IN-HAND

FOR seventy-five years, from Lee's surrender at Appomattox to the stock-market crash of 1929, the entire American nation was in the grip of a dream that business would make everybody rich and that money was the measure of success. This period corresponded with a tremendous acceleration in industry and with the rapid exploitation of the natural resources of the West. It was an era of great fortunes — Vanderbilt, Rockefeller, Astor, Morgan, Ford — and an era of great trusts, of which the prototype was Standard Oil, but which extended to beef, sugar, steel, aluminum, and many other monopolistic concentrations of wealth and power.

It was not only a period of great wealth, but a period of sudden wealth, in which American industry, managed by American business, assumed the economic leadership of the world. The National Banking Act and its successors, the protective-tariff policy which had begun in the eighteen-fifties, and the decisions of the Supreme Court in interpreting the Fourteenth Amendment to the Constitution — all combined with the strong drive for personal profit to make the American business era financially and politically unassailable. American business, operating American industry with full Government support, won the First World War against Germany and hence cemented its leadership of the nation

for the decade which followed the signature of the Treaty of Versailles. Our banks and securities, our money and our methods, were a dominating factor in the world. The whole was accompanied by a rising standard of living and higher margins of profits and, despite serious dislocations in such activities as farming, the process was sufficiently successful to command the support of the mass of the American people.

THEN TOOK A DIVE

But when United States Steel dipped below 100 on that fateful autumn day in 1929, this era had come to an end, despite the honest belief that this panic was only the latest of a series of financial setbacks dating from the dawn of the Republic. It was only when the banks continued to topple and the stocks continued to shrink in value and the bankruptcies continued to mount and the bread-lines continued to lengthen that the conviction began to spread that America had reached the end of an era, and that the problems of the American people lay rather deeper than had been suspected. So slow are men to yield to the obvious that even as late as 1940, after seven years of another type of era and with the Second World War raging, there were many who sincerely believed that it would be possible, as in 1920, to bring about a 'return to normalcy' and a business-minded national leadership.

THE TROUBLE WITH THE 'NORMALCY' IDEA WAS . . .

The policy of 'normalcy,' which had been tried in reaction from the economic restraints of the First World War, had failed because there were grave faults in the social and economic institutions of the business era. These faults relent-

lessly expressed themselves in an increasing popular unrest, in disease, malnutrition, and insecurity in every class of society, in every line of economic effort and every region in the American Commonwealth.

The theory of social individualism and the practice of private business enterprise were visibly failing to meet the basic requirements of organized society. These requirements are simple: that young people shall be able to marry and raise families, that able individuals shall be able to find work and opportunity, and that some provision shall be made for the support of those who are either too young, too old, or too weak to support themselves. No system which denies a people these things can long endure. Any system, no matter how tyrannical, which meets these requirements is a dynamic way of life for the human race.

THE BREED IS TOUGH

There have never been narrow limits to the ability or willingness of human beings to submit to privation, hardship, suffering, and death, so long as the basic requirements of society are met. The American people come of many races, all of which were inured to hardship, races with centuries of hard labor and meager living behind them.

In the first rush of settling this continent, the vitality of our people was released in a human avalanche. The population grew rapidly, both by natural increase and by immigration. Early marriages and large families were the rule. Despite the periodic readjustments caused by overspeculation or misdirected enterprise, the current of American life flowed warm, rich, and resistless.

For a long time, any sense of danger was diverted by two forces. The first was the natural hopefulness and vitality

of pioneering people. Americans had expected death and hardship, disease and poverty, as part of the chances of life on this continent. We had never expected to conquer a new continent without paying the price, and it was impossible to create a new American race out of many different breeds without a large percentage of failures. Our early annals were littered with epidemics as well as Indian raids, and the trail of the pioneers was marked by the graves of those who had fallen by the way. These things were suffered cheerfully, in the sure belief that we were creating a better life for more people. Not even war could check the surge across the continent. Where one generation sowed in sorrow, the next reaped in joy. Our sense of destiny was not disturbed by the sporadic sufferings and injustices which marked our journey toward the future.

The second and later force was the development of scientific methods for preventing disease and for prolonging human life. Fewer babies died in infancy; fewer children were swept away by diphtheria and scarlet fever; fewer adults were killed by smallpox and yellow fever; and the average life-span was increased. This meant that the race could rely less on the womb and more on the test-tube to perpetuate the species. Moreover, the population continued to mount as millions of prolific young European peasants and workers entered the country and replenished our dwindling ranks.

SIGNS OF DECLINE

Even so, by the early nineteen-hundreds, the height of the business era, there were signs of what became known as race-suicide, and with every year that passed these signs multiplied. The American people were ceasing to reproduce

their race, as men ceased to find secure or satisfactory employment and as women ceased to find early or fruitful marriage. Families were smaller, as married couples learned to avoid the risks of parenthood in a world which was economically unfriendly to those who had given hostages to fortune. The ancient and inalienable right to work had been subordinated to a system of law and business in which property values were dominant and the people were beginning to perish. With the increasing speed of industrial technology, it became easier to produce more goods with less labor and to make more money with fewer goods; it became harder for the American people to obtain even a minimum of goods and services from their business system. As the business system broke down, dependent old age became an acute social and political problem. Bands of wandering youngsters and homeless refugees began to multiply. Unemployed youth and undesired age alike were fraying off from the social order, and there was no point at which it seemed possible to arrest the process of disintegration.

THE WORST CONDITIONS IN THE CITIES DEMANDED THE EARLIEST COUNTER-ATTACK AGAINST DECAY

The business philosophy of the American people had made no provision for the unexpected problem of misery in the midst of plenty, no solution for the issue of insecurity in a nation of unparalleled resources. These matters had been unimagined by the Founding Fathers and, though Thomas Jefferson had sought to anticipate them by his spacious suggestion that there should be a new American revolution with every new generation, this plan was clearly inapplicable to a highly integrated industrial society. In any event, Jefferson and his school of sentimental libertarians had re-

garded the existence of large cities as evil in themselves, though it was in the cities spawned by the growing industrial life of America that the remedies began to be found. Through universal suffrage and the growth of the despised political machines, in effect informal governments with the unauthorized but very real power to deal with human hopes, needs, fears, and emergencies, the American people began to deal with their problems.

Hence it was in the cities, and in the political system which had grown up alongside of our constitutional theories, that we began to end the practice of untrammelled individualism. Slowly, we began to realize that we could combine the practice of state socialism with the theory of individual initiative. Slowly, we began to accept the knowledge that a man might be unemployed through no fault of his own; that an efficient business might fail through no miscalculation on the part of its managers; that a whole social or economic group could be made useful to themselves and to the nation by wise and considerate policies. Slowly, it was borne in upon the American people that the wealth of a nation consists of the men and women who inhabit it, and that the people must live no matter how many ideas and institutions perish.

NO LONGER CAN A MAN JUST MOVE WEST

With this conviction came the further realization that, owing to our wide diversity of peoples, climates, economic conditions, and social traditions, it was impossible to impose any one pattern on the entire country; that the failure of the business era had been in the assumption that all men were cut to the same design and were moved by the same motives and incentives. This meant that the remedies for the American malaise must be entirely practical and largely

local measures, dealing directly with practical, local problems and without resort to political ideology or business ballyhoo. It also meant that we had to begin by taking stock of ourselves, to discover what had happened to us and why our magnificent business machine had bogged down in the midst of visible abundance. The old easy solution, a wave of bankruptcies followed by a further move West, was no longer possible, as the wretched 'Okies' discovered when they joined the army of migratory fruit-tramps on the Pacific coast. Much to the disgust of the Babbittry and the distrust of the mass of the people, the professors were the only people who seemed to have the answers.

Their report was discouraging. For the first three centuries after the settlement of America, there was a close relation between the growth of population in both Europe and America, since America was not only its own but Europe's chief frontier. The great increase in population during recent decades, however, had come from better medical care, increased means of production, the opening-up of new areas, and the spread of sanitation. Now population growth was slowing down, for lack of new areas and better social arrangements in both the Old and the New World.

THE CHANGING POPULATION

The United States gives a pretty good picture of what was happening to the peoples bordering the North Atlantic. From the days of the early colonies down to the Civil War, our population increased by about a third every ten years, but after 1900 there was a steady decline in the rate of growth. The numerical number of births reached a peak in the years immediately following the First World War,

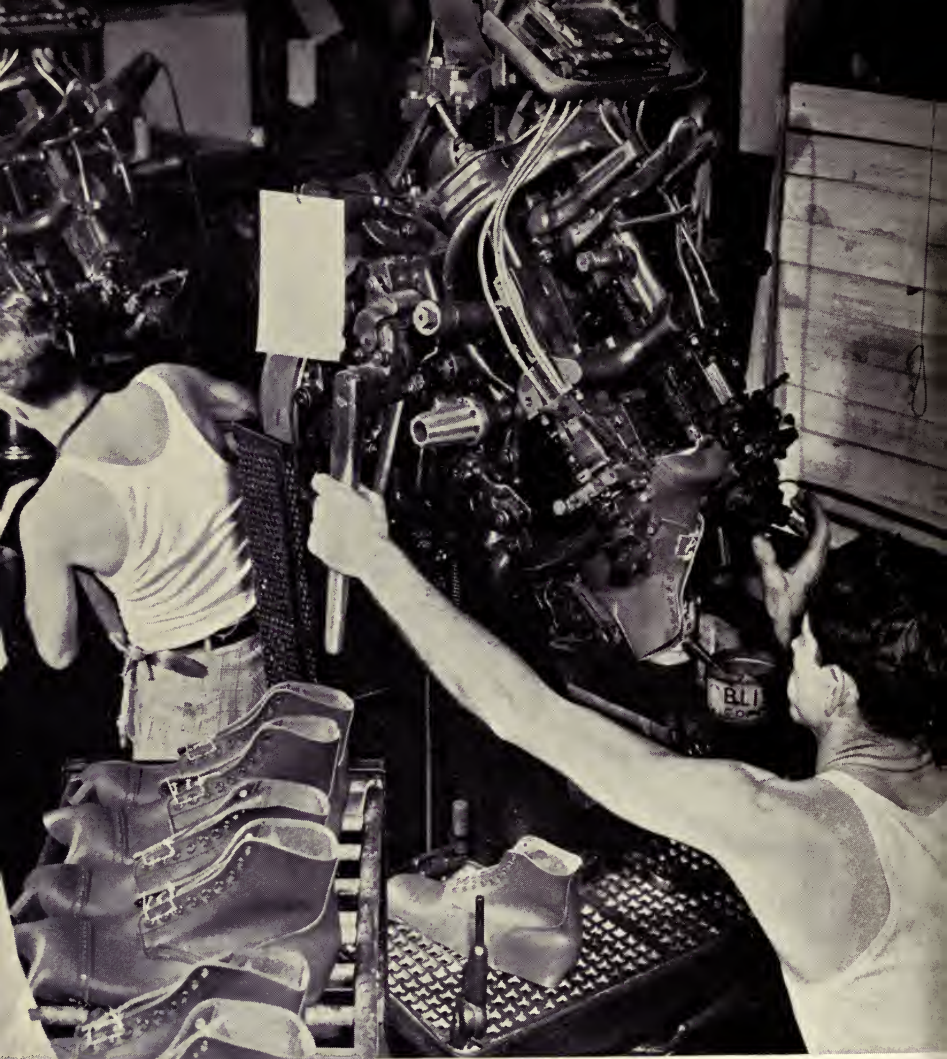
and after 1929 there was a gradual decrease in the number of births until 1937. Then there was a slight change and in 1940, owing to a variety of reasons not all of which can be analyzed, the rate of births actually increased. This was partly because there is an increase in the number of marriageable young people, approaching a peak in 1945, and if we can solve our major social problems by then, it is possible that the gloomy prophecies of race-suicide will be falsified. As it is, the long-range trends indicate a top population of 138,000,000 in 1955, dropping to about 128,000,000 by 1980, and then fading away.

One of the major problems resulting from this trend is the growing numbers of old and elderly people. Forty years hence, there will be a much larger proportion of people over sixty and a much smaller proportion of children than at present. Aside from the fact that this shift will change the whole temper and objective of American life, tending to throw the emphasis on security and the status quo, it will also bring an entirely new set of problems to the people of the United States. A civilization in which children are increasingly rare and old people are increasingly numerous will obviously be a civilization with sharply altered scales of values. There will be important economic and political changes. Ownership will tend to concentrate in the hands of older groups or in institutions acting as their trustees. On the lowest plane, the baby-carriage business will suffer, while the wheel-chair industry will improve. Real-estate values will decline owing to the dearth of new couples seeking homes, and the struggle for existence will be complicated by the political efforts of the old to require the young to support them instead of raising families of their own. Some of this is already foreshadowed by the development of political pension movements like the Townsend Plan.



O.E.M.: Défense Photo

STOKERS



T.V.A. from O.E.M.

SHOES FOR SOLDIERS WITH T.V.A. POWER
TENNESSEE



N.Y.A. Photo

N.Y.A. GIRLS LEARN MACHINE WORK



WHAT ONE-QUARTER HORSEPOWER MOTOR CAN DO
TENNESSEE



TOWER GUARD OVER THE FORESTS
VIRGINIA



MODEL APARTMENT HOUSING
NORTH CAROLINA



W.P.A. CLEARS AND BUILDS MOUNTAIN ROADS



OIL CIRCUIT BREAKER
WILSON DAM IN ALABAMA

At the very least, it will mark a major revolution in the behavior, the methods, and the motives of our people. Above all, it portends a high degree of socialism; for it has never been necessary on the whole to compel parents to take care of their children, but to require a whole nation to pension its old people is impossible without a wide degree of state organization and control. This is probably the point at which American society as a whole ceases to be individualistic and becomes collective.

THE CITY FACES THE PEOPLE'S PROBLEMS

Not only has there been a major shift in the character of our population and a portentous decline in the birth-rate, but there has been a further great change in the relations between the country and the city population. On the whole, the country districts have been static, where the cities have grown enormously under the impulse of the recent business era. And since it is in the cities that the shadow of economic insecurity has been the deepest, it is in the cities and in the industries that the necessary social changes have been developed. For example, in 1935, one fifth of all of America's unemployed were found in our ten largest cities, the workshops and nerve centers of our industrial society. And since no responsible government can allow its people to starve, responsibility for the relief of the unemployed became recognized as the duty of the Federal Government, and relief itself became predominantly an urban policy which was regarded with suspicion and even hostility outside of our metropolitan areas.

This relief problem was not only to provide food and clothing and shelter for the unfortunate victims of the business depression, but to try to reconstruct all phases of our

economic life and to try to eliminate the causes of recurring depressions and social insecurity. All of this led, by the tortuous path of legislation, litigation, and judicial review, to a far-reaching program for relief, social security, and rational labor relations, all designed to reduce the insecurity of the city workers and thus to stabilize the whole system of production and consumption. This relief program inevitably became an attempt to conserve our social and human resources, along with the physical wealth on which we all depend.

This program had to be a city program, since there had been and continues to be a shift in population from country to city without precedent in the history of the world. In 1790, only three per cent of our people lived in our embryo cities; in 1930 over fifty-six per cent of the American people were city-dwellers, and in the same period the number of American cities had increased from half a dozen to more than three thousand. It is, moreover, in the cities that the birth-rate has fallen most sharply, leaving it to the country to breed the workers for the industrial machine. In this way the conditions in the country are the initiation to city life, and low rural standards of living have become a vital concern to our future cities. With more than half of our farm population now working as tenants or share-croppers, this threatens to shift the burden of economic disenfranchisement originally suffered by the city artisans when the factory replaced the household as the unit of production, to the class from which artisans are now recruited.

AMERICAN CIVILIZATION IS CITY CIVILIZATION

Despite the disapproval of the Founding Fathers, the cities are here to stay. They came into existence as a result

of the unprecedented industrial mobility arising from the application of steam, electricity, and the internal-combustion engine to the development of urban and suburban transportation have led to suburban migration and have brought about the existence of large metropolitan districts, instead of individual municipalities, as the actual areas of urban life. In 1940 almost one third of our people — some 37,987,989 persons — lived in ninety-two such metropolitan districts with at least 100,000 inhabitants apiece.

This concentration of people naturally accompanied a similar concentration of industrial enterprises. There are, for example, more than three thousand counties in the United States and the county is still the unit of local government. But in the year 1929, the one hundred and fifty-five counties containing the larger industrial cities accounted for three fourths of all industrial wage-earners, four fifths of all wages paid, eighty-three per cent of all salaries paid, two thirds of all industrial establishments, and four fifths of the value added to manufactured products. In other words, one twentieth of the counties enjoyed a practical monopoly of economic opportunity. This is still true, as is shown by the fact that the eleven largest American cities account for more than half of all America's wholesale trade, while the twelve largest cities originate forty per cent of all the mail.

The problems of administering such congested areas — if only from the point of view of police, fire, and health protection — rapidly outstripped conventional methods of American government and led to the rapid growth of municipal budgets. Today our city governments employ a million and a quarter people on essential public services, and in the black depression year of 1932 the cities spent four and a quarter billion dollars — one third of all governmental expenditures and about one twelfth of the national income.

With federal intervention in economic and social life, a similar burden was thrown on Washington, where today some seventy Government agencies are engaged in various activities directly related to urban problems.

THE CITY, A RAPIDLY CHANGING SOCIAL FRONT

This is because the formidable problems of city society emerge as our real social front. Here we have the most drastic inequalities of income and wealth, combined with the greatest opportunity for political resentment of those inequalities. The natural result was the development of the 'corrupt' political machines and the machine boss in the cities — Tammany in New York, Pendergast in Kansas City, the Kelly-Nash machine in Chicago, Crump in Memphis, the Vares in Philadelphia — to serve as mediator between the rich and the poor and to evolve a system of house-to-house service for political favors and public control. The widespread social activities of the Federal Government would not have proved possible or durable without the political pioneering of these municipal buccaneers and their discoveries of the art of managing large groups of people cramped in small localities.

One of the by-products of the rapid growth of the cities is the equally rapid obsolescence which besets all American values. Villages become towns, towns become cities, cities evolve into vast metropolitan areas, brick replacing frame houses, apartments replacing residences, office buildings replacing shops and lofts, inns becoming grand hotels, and whole sections being cleared away to make room for parks, bridge approaches, or slum-clearance projects. On the other hand, some flourishing localities become ghost-towns and deserted memories of defunct mills, factories, oil-booms, and

mining strikes. Competing forms of transportation have a similar effect on the pattern of American life. River towns were stranded first by canals and then by railroads. The motor-truck and the motor-bus also enter the picture, and now the airplane begins to affect the distribution of our urban centers and even the local pattern and plan of our municipalities.

In all this insecurity and turmoil — of which the latest evidence is the anxiety of New York City lest the St. Lawrence Seaway end the city's significance as a transshipment point — there are further elements of upheaval. Uncontrolled speculation in real estate and rents has caused individual insecurity and municipal tax-delinquencies on a scale which affects the entire country. Speculative building costs have tended to hold down the construction of needed houses. A Government survey in 1934 found that in sixty-four American cities one sixth of the houses were substandard, four fifths were of wood, one third were over thirty years old, and most of them needed repairs, while rentals were so high that the average city-dweller could not afford decent housing.

Crowded and insanitary housing in our cities is reflected in public-health hazards. In low-income groups in the cities infant mortality and tuberculosis rates are far higher than is justified by excellent city public-health services. Added to congestion are dirt, smoke, waste, grime, and the pollution of water as city health problems. Then of course there are the problems of policing communities with a wide diversity of racial, religious, and cultural origins. There are great problems in education, both for children and for adults. And there are extensive juvenile delinquency, organized crime, and commercial rackets, taking toll of the city-dwellers and, through them, of the nation as a whole.

THE CITY AS A UNIT OF GOVERNMENT

Under these circumstances, the cost of public administration in the cities has outstripped the worst fears of those taxpayers whose own communities do not face similar problems. During the 1929-33 Depression, cities paying millions in federal taxes were forced to beg for financial support from the Federal Treasury, or to impose cuts on essential public services in order to make ends meet. This is because urban tax-structures are determined by state governments, which are in turn corruptly dominated by rural representatives who dread and resent the power and wealth of the cities. Even so, the forty-eight state governments which dictate the cities' tax-methods actually spend only half as much money a year as the local governments they affect to control. New York City spends more than the state of New York; Boston spends more than the commonwealth of Massachusetts; Chicago has a larger budget than the state of Illinois, and Detroit has a larger city payroll than the Michigan state payroll. With federal and state taxation extending to support such new government services as social security and public works, the problem is still further complicated.

The final touch is supplied by the fact that twenty-two of our ninety-six metropolitan areas — containing twenty-six million people — straddle state lines and hence are deprived of the unified administration which their needs demand. Here is a situation which almost demands a new Constitution of the United States. Under the business era, it did not greatly matter that Manhattan is in one state, Newark in another, and Stamford in a third. They all formed part of the New York metropolitan area, but the business era frowned on public expenditure and deplored income and property taxes. Now that the business era has

past, and the New Deal spending era is passing, there is need for a rational reorganization of these and many other issues in the cities which dominate our national life.

THE PEOPLE NEED A NEW SECURITY

The problem, stated in the simplest terms, is to find a formula for dynamic security. The social structure left by the wreck of the dream of a business system which would make all the people rich by letting them buy stock on margin and everything else on the installment plan was both insecure and without drive. It resulted in the division of all but a handful of Americans — themselves haunted by a sort of insecurity conjured up in the word 'revolution' — into three great economic classes: the industrial workers, the farmers, and the dispossessed. And the mere existence of the latter group threatened what remained of the security of the two productive classes and of the managers of our society. Thus social security and economic independence were disappearing from the United States, and there seemed to be no incentive on which the nation could rely for the creation of a better organization of its people and its resources. This problem constituted the 'bloody angle' of the New Deal Administrations from 1933 to 1939, while the outbreak of the Second World War rendered its solution vital to national defense.

CHAPTER II

THE FARMERS

THE DREAM OF A NATION OF FREE FARMERS

THE business system which began in the eighteen-sixties and toppled in the nineteen-thirties was the result of one of the great practical bargains in American political history. Before the Civil War and the Republican Revolution which followed, the agricultural interest had dominated American policy. From time to time, the bankers and the commercial classes had enjoyed a temporary control, but from the time of Jefferson and Jackson down to Lincoln's election, the farming elements had controlled the affairs of the United States. Lincoln's new party in 1860 represented an alliance between the Northern farmers, seeking free soil, and Northern bankers and industrialists seeking protective tariffs and other permissive legislation on which to develop American economic autonomy. From Lincoln's time until that of the second Roosevelt, American politics were dominated by this combination of interests, with only occasional interruptions to its power.

The vitality of the Republican dream lay in the fact that it had capitalized the oldest ambition of the transplanted Europeans who had colonized North America. The colonists and later immigrants had one ambition as individuals — to escape from Old World feudalism and landlordism by becoming landed proprietors themselves, to achieve the inde-

pendence of yeomen rather than serfs or peasants, to become gentry, or even landlords. The history of our colonial days and of the first seventy-five years of American independence reflected the struggle between the popular hunger for land and the ancient tradition which held it unthinkable that land should be had for the taking, without equivalent payment in money, goods, or labor. The people won. They gave form to Thomas Jefferson's vision of a great yeoman civilization — free men on free lands — an economic democracy which could enforce political democracy and give meaning to social democracy.

Yet the dream was as false as the impulse behind it was sound. It was almost fatal to imagine that a system of land-tenure and a mode of farming which had not long survived the time of Augustus, when the poet Horace, along with the veterans of Rome's Civil War, received his Sabine farm and his laughing Lalage, could endure in a continent where the forces of Nature were infinitely more formidable than any which the Europeans had to face. The ancient principles of thrifty agriculture could not be repealed; their visible effect was merely delayed for a few generations.

Here we, as a people, took a wrong turning in adopting the principle of individual landownership in perhaps the only continent in the world which had to be operated as a whole. The people did not long retain title to the wealth which lay beneath their soil; it rapidly became the property of private corporations. The people did not long retain title to the land they tilled; the ancient cycle of debt and taxes frustrated their desperate effort to realize their dream; the people squandered their heritage. As debt increased, as taxes mounted, as rent became the rule, they neglected the land itself, mined the soil of its fertility, left whole provinces stripped against the wind and rain.

OUR OPPRESSED MINORITY ON THE FARMS

The nineteen-thirties found the American farmers facing an economic crisis which approached catastrophe. Wasting lands, falling prices, loss of foreign markets, insecurity of landownership, and underfed farmers and undernourished city-dwellers had combined to make a mockery of the great Republican compromise of 1860. At the same time the farmers had lost the political power to enforce their demands. They had risen under Bryan in the eighteen-nineties and had been defeated at the polls. They had risen again under Woodrow Wilson, only to share the disastrous inflation of the First World War period. They had tried to rise in 1924, under Bob La Follette, only to discover their impotence to determine national policy. By the nineteen-thirties, when the second Roosevelt was elected, they had become simply the largest of the many American minorities.

Before the First World War, the farmers were one third of the American nation; the outbreak of the Second World War found them only a fourth of the people of the United States. The farmer's share of the national income, in the same period, dropped from twenty-five to fifteen per cent. Deflation had reduced the value of farm-land to less than the value in 1913, while since 1930 over a quarter of all farms had been subject to foreclosure and farm-tenancy had increased nearly twenty per cent since 1920.

In that period the farmer lost his world markets. His share in the world's cotton market dropped from about sixty-five per cent to forty per cent of the world's exports. During the First World War, wheat sold at \$1.76 a bushel; it dropped to as low as sixty-eight cents during the world depression, and only once in the last eight years has the American farmer received more than a dollar a bushel for

his wheat. Surpluses piled up, and even war demands did not reduce them or raise prices to an important degree. Government aid did not seem to help. The federal authorities spent over three billion dollars on direct farm subsidies and many billions more in loans and other premiums, yet the seven million American farm families in 1939 had an average income of \$1190 apiece, counting the food retained for home consumption. Two thirds of these farm families 'own' the land they farm; the rest are hired hands, tenants, and migratory workers.

EFFICIENCY DOES NOT SEEM THE CRITERION

This low standard of welfare and high degree of insecurity is in direct opposition to the efficiency of the American farmer. With only two per cent of the world's farmers and not more than five per cent of the world's really good farm-lands, we have become the world's greatest agricultural nation. We lead the world in three staples: corn (fifty-two per cent), cotton (forty-two per cent), and dairy products. We produce all the luxuries, as well as enough eggs to give every American an egg for breakfast six days a week. We now produce half of the world supply of citrus fruits, having tripled our production since 1920; in 1938 we made five hundred million pounds of cheese and refined over four and a half billion pounds of sugar.

The technical revolutions which account for this production are adding to farm insecurity. The farmer is becoming mechanized and is sharing the risks, though not the profits, of the industrialists. There are nearly two million farm tractors in America today, double the number in use in 1930, seven times the number in 1920. Nearly half of these tractors are less than four years old. In 1920, Texas had

nine thousand tractors; today there are over one hundred thousand. In Mississippi the number of tractors has trebled in a decade. Illinois has six tractors for every ten farms, while in parts of Iowa, Oklahoma, and Texas there is a tractor for every farm. In all, the American farmers spend half a billion dollars a year on machinery — more than they spend on farming — as compared to eight million dollars a year spent on horse- or mule-drawn vehicles.¹ In the South the tenants and the share-croppers have been 'tractored' off the farms and the mechanical cotton-picker threatens still more serious unemployment and distress for the Southern farmers of the future.

STARVATION IN THE RICHEST COUNTRY

The greatest indictment of all, however, was the failure of the American system of farming to produce food for the needs of the mass of the American people. It is an extraordinary fact that the richest nation in the world should have become the scene of widespread malnutrition and even of starvation in the early nineteen-thirties. This was true not only of the congested urban areas and the 'ghost-towns,' but also of the farming regions, where pellagra and other diseases of improper diet flourished in regions where the soil was a miracle of fertility.

To assign causes for this condition was difficult. Faulty economic institutions and immature social philosophy were partly to blame. There were also ignorance and thriftlessness in the picture. Women and children no longer habitu-

¹ Economic surveys presented to the Temporary National Economy Committee suggested that in corn and wheat production, power-machinery was less profitable than horse- and mule-power. Power-machinery applied to cotton production was profitable only when the price of cotton was above ten cents a pound.

ally worked in the field or the garden; cash crops were cultivated to the exclusion of food crops; in the South the heritage of slavery was expressed in what amounted to slave-rations for whole communities — especially the fatal combination of molasses, corn meal, and fat pork. Physical inertia, often induced by hookworm, tuberculosis, syphilis, or other plagues of poverty, ignorance, and dirt, discouraged efficiency and diversification. Whole city families lived out of tin cans, and dependence on weekly wages put large classes of people at the mercy of retail practices. Many foods were controlled by monopolistic combines and rackets or were the subjects of special legislation which kept prices high and restricted supply.

Statistically, we enjoyed the highest standard of living in the world, but you can't eat statistics. Actually, the average Italian peasant — with his macaroni, olive oil, and sour wine — fared better than the average skilled American worker, while the rural slums experienced slow starvation. Diseases which can be cured by sunlight, milk, and eggs flourished in sun-drenched Southern counties where poultry and dairy cattle would have found ideal conditions. Undernourished families dragged along from year to year, in hopeless debt to the company commissary or the plantation store, when a little land around their cabins could have raised enough green stuff and vegetables to halve their grocery bills and double their effective diet.

It was not enough to plow income into the mass of Americans so that they might buy food. It was actually necessary to teach them how to grow food, how to cook food, and what sort of food to eat. After three centuries in North America, the American people were ignorant of the basic human arts of farming, canning, and cookery. The skillet, the coffee-pot, and stew-pan represented the summit of

culinary equipment for millions of country women, while the can-opener and the delicatessen did for millions of city-dwellers.

TEACHING THE UNITED STATES TO EAT

It was fortunate that this condition matched the need for drastic readjustment of acreage in such basic crops as wheat, corn, and cotton. So the move for a diversified type of agriculture, under both the A.A.A. and the Farm Security Administration, met with less resistance than would otherwise have been inevitable.

Even so, there was obdurate resistance. Industries interested in the sale of misbranded foods and drugs poured so much money and propaganda into the national councils that it proved almost impossible to revise the laws designed to protect the public against dangerous frauds. It remains a standing disgrace that the bulk of American newspapers and magazines refused to fight for legislation to protect the public against this form of commercial abuse and heaped ridicule and abuse upon those who sponsored the measure. The commercial dairy interests succeeded for eight years in keeping milk prices high to the consumer and low to the farmer, and even wrote into law a statute forbidding Southern cotton-growers to put their surplus acreage into dairy pastures. This latter iniquity was sponsored by the so-called La Follette Progressives of Wisconsin. The meat-packers asserted that the whole packing industry would collapse if pork was distributed free to the unemployed. So in 1933, the 'little pigs' were killed and the meat destroyed. It was only during the great droughts of 1934 and 1935, in the disaster that struck a death-blow to farming on the Great Plains, that beef was slaughtered and given to those on relief.

Even so, it was not the meat-packers or the drought but the Government which got the blame for both the 'murdered' little pigs and the drought-stricken herds.

In three fields, however, the Government found it possible to operate without effective opposition. Under various federal relief programs, free school-lunches were provided for poor children in most of the large towns and cities. The food was cooked and distributed by relief workers on a scale which reached almost astronomical totals. A whole generation of American school-children were thus assured of at least one good, nourishing meal a day. This held true of the C.C.C. boys, whose camps provided a wholesome diet to three hundred thousand young Americans each year, boys from poor homes who learned for the first time what it was to enjoy abundant, good food. The same thing, of course, was true of many of those called into the Army by the Selective Service Law.

HEALTH AS SECURITY FOR LOANS

The first major change, however, came through the Farm Security Administration. An important part of the security for the loans granted to poor farmers by this branch of the Federal Government was necessarily the health and welfare of the borrower and his family. So it was sound business as well as good politics to stipulate in the contract that the borrower was to grow food for his own family. This would not only maintain the borrower's physical ability but would also conserve his cash resources. In working out individual farm plans, not only did the Government make provision for vegetable gardens, poultry, pigs, and cows, but Home Demonstration workers of the Department of Agriculture actually taught the wives of the borrowers how to cook and can and pickle and preserve.

Here is a Farm Security Administration report on a project in Greene County, Georgia — a worn-out cotton region which had become an agricultural slum:

Closely related to the farm plan is the home-management plan, which is made out by the farmer's wife with the help of the home-management supervisor. Here again, the emphasis is on production of food for home consumption — more hogs for meat and for breeding, more cows for home-used milk, more chickens and eggs, more syrup, more potatoes, more dried peas and beans, more nuts, more corn and wheat. Economy in raising a garden is stressed; the families are taught to save their home-grown seed, to save all fertilizer, and to increase it by the addition of hay or leaves. Home orchards are encouraged. By 1939, all families receiving loans from F.S.A. had agreed to improve their present orchard, if they had one, or to start a new one. Finally, emphasis is placed on the preservation in cans or jars of enough food to tide the family over the unproductive winter months. For this purpose the borrower families are urged to buy pressure cookers and enough jars to preserve food for the whole family, and to have adequate storage space in their cellars. Sometimes, when these facilities are inadequate, provision is made for them in a supplementary loan.

The point of this report is not the gratifying note that the average F.S.A. family in Greene County more than doubled its home production of food in a single year. The point is that this painful business of teaching the A B C's of farming had to be taken in one of the oldest farming regions in the United States. In a county which had been under cultivation for a hundred and fifty years, it was necessary to teach American farmers how to grow their own food. It is worth noting that the whole Farm Security program has met with steady opposition from the principal farm lobby at Washington, the Farm Bureau Federation, which represents the commercial interest in agriculture.

BUYING FOOD WITH STAMPS

More drastic still, since it may contain the key to an entirely new American economic system, is the Food Stamp Plan launched by the Department of Agriculture at Rochester, New York, in May, 1939. Within two years this plan had spread to nearly three hundred areas and was providing about five million people with a decent diet at a total cost of about two dollars per person per month. The Food Stamp Plan was the work of a brilliant young New Deal administrator, Milo Perkins, of the Department of Agriculture, with the strong support of Henry A. Wallace. Since its principles have been extended to cotton clothing as well as to food and are to be applied to inter-American economics, it is worth more than a glancing comment. The Food Stamp Plan solves three important problems of social economics in a single operation: it increases the food-buying power of low-income and relief families by fifty-eight per cent; it increases the volume of business, agriculture, and the consumers of food at a very small cost.

Relief families are allowed to take part in this novel experiment in the following manner: they can invest their food-relief allowance in books of orange stamps, which are good for staple groceries. With these orange stamps, the relievers also receive blue stamps of half the value of the orange stamps. These blue stamps, which cost the relievers nothing extra, can then be exchanged for special groceries of which there is an unmarketable surplus held by the Federal Surplus Commodities Corporation. This latter corporation is charged by law with the duty of buying up and withholding from the market temporary farm surpluses which threaten to reduce farm prices to an uneconomic level. These surpluses are then distributed via the blue stamps to the un-

employed, while the farmer also enjoys a steady market for relief food-staples by means of the orange stamps. In other words, the Food Stamp Plan creates a new form of money, good only for certain purposes and available only to certain individuals. In this way it is possible to make sure that those on relief get a better diet than if they were left to spend their food-allowance in the open market. The stamps protect them and their families and constitute a form of income which is saved for the purpose of assuring them a decent diet.

The implications of this ingenious scheme have driven seasoned conservatives into cat-fits. To some it seems socialistic, paternalistic, bureaucratic, and abominable. To others it seems unfair that the lowest-income groups should enjoy dietary privileges not available to other wage-earners. Yet the popularity of the Food Stamp Plan among all who are directly concerned in its operation is comparable to the popularity of the Civilian Conservation Corps. Highly significant is the fact that it, almost alone of recent public programs, started on a small and experimental scale and has since grown naturally and easily. In November, 1940, the Surplus Marketing Administration, which handles this deviation from orthodox capitalism, reported that the blue stamps had distributed the following groceries to two and a half million Americans:

- 1,519,000 dozen oranges
- 295,000 dozen grapefruit
- 6,330,000 pounds of apples
- 2,234,000 pounds of dried prunes and raisins
- 648,000 pounds of fresh pears
- 12,068,000 pounds of pork products
- 2,194,000 pounds of butter
- 2,621,000 dozen eggs
- 22,675,000 pounds of white and graham flour

7,798,000 pounds of other cereal products
24,383,000 pounds of potatoes
10,548,000 pounds of dry beans, fresh cabbage, spinach and
onions.

A NATION AS WELL AS AN ARMY TRAVELS ON ITS STOMACH

All of this is an approach to the goal which has been set by the Department of Agriculture in recent years: an abundant diet for the American people. At present, barely one third of Americans are adequately fed and at least one third are miserably undernourished. To produce and distribute the milk, butter, eggs, fruits, grain, vegetables, and meats required to supply a well-balanced and sufficient diet for our people — including our farming people — would solve all the financial problems of our agriculture.

It would, in fact, be the logical outcome of our current agricultural revolution which is based on diversified farming, specializing, and intelligent land-use. It might be a social and moral revolution, in that it could release the physical and mental energies of a dynamic and enterprising race. And it is entirely possible. There has never been any valid economic obstacle to a decent diet for the American people. There is plenty of good land available, land whose fertility would be preserved by a stable system of farming. All the techniques are well known, the methods are simple, and the demand is assured. The Farm Security Administration and the Food Stamp Plan, between them, are the marching orders for one of the real revolutions in human history — the successful effort to provide an entire nation with a well-balanced and sufficient diet. For food, as Lenin said, is politics.

It makes me and many other Americans shudder to con-

sider what might have been the fate of this nation if Hitler had achieved power in Germany in the nineteen-twenties and Germany had launched the Second World War, not in 1939, when we had had ten years of national struggle to reorganize our farming system and our national food-supply, but in 1932, when our farmers were desperate and decent, self-respecting industrial workers were half-starved, rioting, and without hope. It is a fact that, thanks to the labors, the planning, and the policies of the Federal Government under the last two national administrations, we are at least relatively well organized in the production and distribution of food and fibers, and hence are largely immune to the sort of Nazi propaganda which might otherwise have rendered us helpless spectators and victims of the present world catastrophe. For among the basic human rights is the right to eat regularly, without which no statute of civil liberties is worth more than a scrap of paper, no national will for freedom is worth more than that whiff of grapeshot which is the favorite prescription of tyrants dealing with a leaderless mob.

CHAPTER III

THE WORKERS

THE SANCTIFIED BUSINESS STATUS QUO

SO LONG as the expanding development of our natural resources made the business dream of everybody's becoming rich a credible dream, it created a business civilization of a very high material order. During the First World War, when President Wilson faced the need for economic effort, he called in the chief business leaders of the nation and, by the War Industries Board, mobilized the energies of American industry in an offensive which enabled the Allies to win their war against Germany.

The post-war period was, therefore, entirely dominated by the men, methods, and motives which had created such tremendous power and distributed such immense wealth. This very victory was the prelude to disaster, for it tended to 'freeze' practices and sanctify principles which would otherwise have been modified by events. The causes of the resultant financial and industrial crisis were numerous, but the central cause was this failure to consider changes in methods, men, or motives. There were monopolies of capital and labor; there was a philosophy of scarcity which limited output in order to maximize profits; there were protective tariffs, cartels, and other barriers to trade which reinforced these uneconomic practices; technological advance was speeded up and led to displacement of labor without cor-

responding benefits in lower prices to consumers; there was reckless gambling in securities; there were uneconomic and anti-social tax laws; there were racketeers, crooks, and other abuses of the public; there was irresponsible management in corporate control. But the chief and fundamental cause of the disasters which began in 1929 was the fact that then, as in 1919 and even in 1939, the same group of men remained in substantial control of the American organization of industry and of labor in industry. Whether it was a Henry Ford or a John L. Lewis, old dogs were incapable of learning new tricks, and the inevitable reaction to any and every proposal of social reform was to brand it as 'red' or 'Bolshevist' or 'radical.'

WAGE-SLAVERY IN A FREE MAN'S COUNTRY

After the Wall Street collapse and the shutdown in industry, it became possible to examine what had really happened to free labor in the United States, whose victory had been promised by the crushing of the Southern Confederacy and the liberation of the slaves. The facts were rather startling and remain, despite all efforts at reform, to haunt the councils of our economic statesmanship. Chattel slavery was legally outlawed, but wage-slavery had taken its place and was an irresponsible form of economic bondage in which the employer was divorced of social accountability for the welfare of his employees except when they were on his payroll. Labor became an economic commodity and, with the spread of automatic and semi-automatic machinery, became a raw material for industry. Labor unions had adapted themselves to the idea of a permanent scarcity of jobs, and were more concerned with protecting the employment of their own members than with utilizing the full man-power of the American nation.

The blunt fact had to be faced that the majority of Americans work for someone else. The 1938 figure was estimated at thirty-one million employees, not counting the two and half million on the rolls of the W.P.A. or the three million working on farms owned by someone else. The employers of these thirty-one million workers were approximately thirty thousand managers of American industry, with the help of so-called 'straw-bosses' whose salaries and security of employment linked their interests with those of the employers. The labor struggles of the nineteen-thirties were an effort to establish a similar identity of interest and security between the managers and white-collar workers and the twenty-five million American men, women, and children who supply labor to American industry.

The growth of unemployment and the scarcity and insecurity of jobs had further depleted the earning capacity of this large group of citizens. Wages ranged from fifteen dollars a day for a skilled steel-roller to the illegal wage of eight cents an hour for some Georgia workers. The average industrial wage for those employed was about twelve hundred and fifty dollars, a sum too low in purchasing power to maintain a family of four. This simple arithmetic was the basis for the urgency of the labor movement which developed in the Roosevelt Administration. The going practices of industry were working against the welfare of society, by denial of a 'family wage.'

SUBEXISTENCE OF THE UNEMPLOYED

Worse still was the emergence of a large group of people who were economically dispossessed, for whom neither industry nor agriculture had jobs at even starvation wages. The young, the old, and the unemployed created a pressure

of idle and desperate masses of necessitous men and women which was the real driving-force behind the social changes which occurred. Until provision had been made to utilize their services, all the 'gains' of labor were in jeopardy; until these idle citizens were assured of income from productive labor, the markets of industry were limited and the profits of industry were subject to heavy taxation for their support.

Two reasons are generally given for the presence of abject poverty in the midst of productive America. The first is the technological displacement of hand-labor by machinery, which has never been accurately estimated. The closest guess is that two thirds of the unemployed are people who have been machined out of the mines, rolled out of the steel mills, machined out of the ditches and off the construction of highways, bumped off the railroads and tractored off the land.

Secondly, it is estimated that between five and six hundred thousand new young workers have come into the 'labor market' each year since 1929 — many of them of necessity untrained for industrial employment. This group of unwanted youth exists outside of the economy of the greatest industrial system in the world. At the same time, as jobs became scarce, employers began to pick and choose, and industry as a whole decided that man was 'too old' for employment at forty-five, forty, or even thirty-five years of age. So began the group of superannuated wage-earners, men and women with skill, brains, and experience, who were arbitrarily expelled from the charmed circle of industrial production and who, even now, must wait twenty years before they are eligible for old-age pensions.

Business learned that it can still make profits without employing the dispossessed. The production figure for industry is now greater than in the year of milk and honey, 1929,

and yet there has not been any impressive decline in unemployment. Big industry sells chiefly to other industries or to the Government; construction materials go to those with capital to build and to those who are financed by the Government; and so it is in consumer goods that the pinch is felt and the profit-margins are most injurious to the mass of the people.

RURAL DISPOSSESSED

According to the Government's 1937 unemployment census, the unemployed are found chiefly in the large towns and cities where fifty-seven per cent of our people are now concentrated. But wasted man-power is also afflicting the rural regions. Before 1930, farm communities used to send labor to the cities at the rate of six hundred thousand a year; today they send less than half that number. We have rural as well as city slums. The cotton belt offers a fair sample. Here half of the soil is seriously eroded and the standard of living is low. The boll weevil flourishes; only one third of the farms are owned by those who work the soil, the rest are share-croppers; this section leads the nation in pellagra — the direct result of chronic malnutrition.

Another example is the cut-over region around Lake Superior and northern Lake Michigan, covering some eighty counties in Michigan, Minnesota, and Wisconsin. The pine trees were slashed down forty years ago, the copper mines are too deep for profitable mining under current prices, and the iron mines are mechanized. Men and women still want to live and miners and lumberjacks have tried desperately to farm the low-grade soil. The Great Plains have been devastated by natural and man-made catastrophes and already the region — stretching over Kansas, Oklahoma,

Texas, Colorado, and New Mexico — has given to the nation Steinbeck's *Grapes of Wrath*, the Associated Farmers, and the 'Okies' in their desolate existence on the Pacific coast.

And in the cities — well, when the 1937-38 business recession hit Detroit, the W.P.A. rolls jumped from twelve thousand to one hundred thousand in six months.

THE PEOPLE ACT TO REALIZE THEIR AMERICAN DREAM

Such are the people of the United States for whom and through whom the Government of the people must make plans. Here are the heirs of the American Dream, the citizens of the New Atlantis. Here are they for whom Washington warred, Jefferson thought, Jackson fought, and Lincoln suffered. Here are millions of simple, ordinary human beings, striving under democracy to remake their country in the midst of a world crisis whose outcome is beyond the capacity of the wisest to understand or to foresee. Their necessities and their hopes have helped create the very crisis which they are called upon to solve in a supreme challenge to our collective intelligence and our national good-will. For it is possible to plan for land and it is possible to plan for water, but you cannot plan for people. People must plan for themselves.

There were and are only two ways in which people can plan for themselves in reconstituting the social order. One is through voluntary association and direct economic action. The other is through political association and governmental action. The violent process known as revolution is simply a combination of the two methods.

THE MARCH OF LABOR

During the nineteen-thirties, the American people tried both methods, peaceably, and achieved both remarkable success and met with remarkable opposition. The way of voluntary association and direct economic action came through organized labor. After the Civil War launched American industry on its imperial march, American labor endeavored to cooperate and organize under the Knights of Labor. This effort failed, only to rise again in the American Federation of Labor. There began a long fight with great gains in the form of better wages, shorter hours. It was straight trade-unionism without party affiliation or religious motivation, and it produced results. In 1916, when the railroads failed to grant an eight-hour day, political action gave railway labor the Adamson Law in order to avoid a threatened strike. During the post-war period of deflation and business dominance of the Government, the A.F. of L. failed to meet the requirements of the assembly lines and of mass-production, geared to a high speed and a killing pace. With the Roosevelt Administration, labor got first the N.R.A. labor protection and later the National Labor Relations Act, as a legal instrument to guarantee the right of collective bargaining.

Then labor turned to voluntary association and established the Committee for Industrial Organization in 1935. Within a few years, the C.I.O. movement became a nation-wide effort to organize all the workers in the mass-production industries and came into bitter conflict both with business organizations and the established A.F. of L. unions. And here the story of the C.I.O. should be told, because it remains one of the major factors in the effort of the American people to reorganize their economic and social life.

C.I.O.

In 1934, at San Francisco the American Federation of Labor promised several proponents of industrial unionism in the labor movement that a drive would be sponsored. The Executive Council of the Federation was enlarged to deal with the problems which already were stirring in the rubber plants in Akron, the automobile plants of Detroit, and the steel plants of the Middle West. Acting under the terms of the National Industrial Recovery Act, Section 7A (collective bargaining), the A.F. of L. had chartered several local unions for this purpose, but they had remained a disconnected, loosely knit body of individuals powerless to do anything for themselves or for a labor movement.

In 1935, in Atlantic City, John L. Lewis of the United Mine Workers of America, William Brown of the International Union of Mine, Mill, and Smeltermen, Harvey Fleming of the Oilfield Workers' International Union, Sidney Hillman of the Amalgamated Clothing Workers, David Dubinsky of the International Ladies' Garment Workers, and others formed the Committee for Industrial Organization, after they had come to the conclusion that the Federation's Executive Council meant to do nothing about the needed organization in heavy industry.

In a nation changing its physical, social, and human values, the story of the growth of the C.I.O. cannot be overlooked. It was a force like that of a huge lake of human feeling and demands breaking through retaining walls. The organization of the C.I.O. seemingly could not be stopped. In 1937, after the United States Steel Corporation, the greatest in the world, capitulated and recognized the new collective bargaining, guaranteed by the laws of the United States, and after the two great automobile companies,

Chrysler and General Motors, had signed contracts with the United Automobile Workers of America, and after the rubber companies and Westinghouse and General Electric and many another had agreed to a new creed in labor relations, it went like a prairie fire.

A national headquarters for the organization was set up in Washington and a nation-wide organization was established, more to deal with the urgent demands of laboring men than to go out into the field and organize. A constant stream of delegations and thousands of letters poured into every one of the C.I.O.'s regional offices and the national headquarters. Fifty-two regional directors were appointed and close to six hundred organizers were traveling around the nation trying to keep pace with the demands upon them.

Like a sign of the times, the C.I.O. was not a movement from the top down, like so many in the past history of the United States; it was a movement from the bottom upward. That side of the story has never been told. Credit should be given the leadership of the vast movement because here was a movement threatening to run away with itself and engulf not only its own leadership but a great part of the nation. Local industrial unions were established all over the nation.

Many things affected the progress of the C.I.O. There was the recession of 1937, and there was the terrific battle put forth by the managers and owners of 'Little Steel' and by the Ford Motor Company. There was an attack on C.I.O. labor, leveled from high places and reiterated in the American Press without precedent in our history. And then, contrary to the opinion of the nation itself, which seemingly accepted the belief that the National Labor Relations Board aided and abetted the growth of the C.I.O. the Board actually became an obstacle because of the swift piling-up of cases. It is doubtful if many organizers and officials of the

C.I.O. realized what was taking place. And it is certain that those conservatives who have been so consistent in their attack on the Labor Board never once gave thought to the possibility that the Board was a brake on rapid organization of industrial labor. And fast organizing was the necessity of the C.I.O. With labor cases delayed in Board offices for months and with impatient men demanding action, it was only natural that their ardor should cool. When the final chapter of the C.I.O.'s first appearance in American industry is written, the opponents of the National Labor Relations Board may find it worked in their behalf.

CONCENTRATION IN INDUSTRY COMPARED WITH THAT IN LABOR ORGANIZATION

Since there are those who hold that organized labor did not move too fast, here are some figures from *Fortune* magazine. The growth in union membership during the past six years — from 7.3 per cent of the gainfully employed to 18.9 per cent — came a great deal later than the growth in the country's industry and the shifting of peoples into other ways of life. In 1929 about 8 per cent of the manufacturers in the nation were employing 70 per cent of all manufacturing workers. In the same year 206 plants employed more than 2500 workers each; in 1935 there were only 178 such plants, but these employed a higher percentage of the workers. Three manufacturers employed about 70 per cent of all automobile workers; one corporation employed 45 per cent of all those in steel; taken together, these two industries employed over a quarter of all factory workers. Industry was consolidated long before it faced a consolidated industrial labor movement. Industrial concentration encouraged resistance to labor and resistance brought strikes.

A wave of sit-down strikes alarmed the ordinary citizens of the nation and did much to alienate them from C.I.O. labor. Strikes increased as workers were determined that they would take what the law allowed. And it was revealed that industry was spending eighty million dollars a year on strike-breaking agencies, spies, and the arms of war.

While the battle raged between the collectivism of labor and 'rugged individualism' in industry, Myron C. Taylor resigned as chairman of the Board of United States Steel. In his parting speech he praised Philip Murray, now president of the C.I.O., and stated to his directors that in the most trying times in the history of the corporation its labor relations had been the best. And this while others fought — killed one hundred and twenty-five men in four years, saw a massacre in Chicago and bloody warfare in Harlan County, Kentucky. The result of the impetus given labor by the new laws of the nation, by a concrete labor policy of the people's Government, and by the hectic work of the C.I.O., brought labor into the center of the American stage. And as the spotlight played on isolated cases of Communism in the C.I.O., it likewise swung into the ranks of the A.F. of L. and blazed revealingly on racketeers, gangsters, monopolies, and plain reaction.

LABOR AND NATIONAL DEFENSE

This turbulent picture was suddenly plunged into further confusion by the tremendous national-defense program which began in the summer of 1940. The fall of France and the danger of British collapse compelled the United States to embark on a hasty effort to catch up with Hitler's munitions economy. This meant that industry was being converted to a program of production limited only by the supply of

power, tools, and raw materials, and that labor, no longer a drug on the market, would find itself faced with a demand for jobs far greater than present or prospective union membership.

The result was predictable. There were strikes in defense industries as organized labor tried to enforce collective bargaining and collect increased wages and better working conditions from a management freed from financial problems. A.F. of L. unions tried to prevent C.I.O. unions and non-union workers from being employed on defense projects. Some Communist-led C.I.O. unions staged strikes in strategic plants in order to cooperate with Soviet Russia's policy of collaboration with the Nazis. In other cases, workers found that, for the first time, they had it in their power to wrest concessions from the Ford Motor Company, Bethlehem Steel, and other employers whose resistance to labor organization was a matter of industrial policy.

Public opinion and congressional opinion hardened against the strikers, and in one case the Government was forced to send troops to occupy a strike-bound airplane factory in Southern California, but on the whole the Administration held to the principle that its policy was to maintain production and to settle individual stoppages of production on their merits. As a result, and with scant help from a press which consistently confused the issue of defense and injustice, American organized labor emerged from the first months of the defense program in a far stronger position than at any other time in American history.

ABOLISHING LABOR AS A SEPARATE INTEREST

This was possible only because the political leadership of the labor movement was infinitely stronger and more re-



U.S. Forest Service: Photo by F. E. Dunham

C.C.C. BOYS REDISCOVER AND REBUILD AMERICA
CALIFORNIA



Farm Security Administration: Photo by Lang

HANDS ON THE HOE
ALABAMA



Farm Security Administration: Photo by Lan,

GIRL FOLLOWING THE PLOW
ALABAMA



Farm Security Administration: Photo by Lee

TENANT FARMER — OLD STYLE
MISSOURI



Farm Security Administration: Photo by Lee

A NEW HOME IN THE LAFORGE COOPERATIVE COMMUNITY
MISSISSIPPI



Farm Security Administration: Photo by Rothstein

RESETTLED FARMER
MONTANA



Farm Security Administration: Photo by Lee

FARMERS TRAINED IN THE BEST USE OF MACHINES



Farm Security Administration: Photo by L.

A NEW COMMUNITY AT LAKE DICK
ARKANSAS

sponsible than the union leadership of organized labor itself. The political leadership was that of President Roosevelt's Administration, which had been re-elected to an unprecedented third term by the votes of industrial labor, after a campaign in which the radical union leadership of John L. Lewis had supported the President's opponent and had impeded and denounced every important administration both for the organization of industrial defense and the settlement of labor disputes.

The reason for the success of labor's political leadership was the program for social security — including the Social Security Act, the National Labor Relations Act, the Wages and Hours Act — fought for and maintained by the Roosevelt Administration. The effect of this entire program, considered over the years, was to deflate the power and prestige of union leadership by rendering direct economic action unnecessary. If a union could bargain collectively without resort to strikes and walkouts, what need for strong-arm labor tactics? If a worker could obtain decent wages and humane hours through positive federal legislation, why join a union? If the individual worker could obtain protection against involuntary unemployment, old age, illness, and other forms of social dependence, why join organized labor at all? And if the Government program was multiplying jobs, what was the use of all the elaborate methods by which many unions sought to restrict the exercise of economic democracy to a handful of skilled workers?

In other words, by concentrating the national program on fundamentals, the political leadership of labor was tending to abolish labor as a separate interest and group within the nation and was creating out of insecurity a new social order based on social solidarity. Measures designed to distribute income and security for all the people were replacing the

old tactics of the 'class struggle' and the radical dream of a syndicate society in which a few industrialists and labor leaders would lay down the law to a subservient political government.

CHAPTER IV

SECURITY

A DYNAMIC STATE NEEDS ITS OWN TYPE OF SECURITY

INSECURITY — whether it took the form of unemployment, low farm prices, lack of purchasing-power, or lack of confidence — was a national issue and called for national remedies.

Whole communities, entire industries, even vast regions, found themselves in the early nineteen-thirties unable to make plans or even rational adjustments because of the lack of any assurance of continuity. This was something new in the helter-skelter experience of mass-unemployment. There had been hard times a-plenty, but these had been brief and had not interrupted the growth of the American nation, because opportunity quickly reappeared and confidence asserted itself.

After the Panic of 1929 there were years when no man felt secure in his job, no farmer knew whether his crops would bring the cost of harvesting them, aging people could not look forward to an independent old age, young people could not count on education or jobs or marriage, parents could not raise families with any assurance of being able to provide for their children. To millions of Americans, illness was the equivalent of disaster. Insecurity permeated the social order. The millionaire and the employer felt it no less than did the man with a job or the man without work.

Yet there was no real economic crisis in the United States — no shortage of capital, equipment, skill, tools, labor, or raw materials — to justify such privations, but the bulk of the people saw the crisis in economic and financial terms and hence demanded economic reforms. This demand led to the development of an ideal of security which in itself held a further menace.

It is far from certain that security is a valid goal for any dynamic society. Security involves immobility and the surrender of some individual initiative. Too great security is apt to breed stupidity, inertia, and weakness. The proper balance between security and insecurity varies for individuals, communities, eras, and age-groups, but can best be measured by the existence of opportunity. It is not easy to provide individual opportunity in an age of technological revolution and concentration of industrial economy. Neither Hitler nor Mussolini has succeeded in doing so, under far greater pressure than any yet experienced by the American people. Military adventures are only a safety-valve, for the problem must be solved by slow evolution and by painful readjustment to changing realities. Yet even evolution and readjustment are impossible without a minimum standard of security for the individuals who compose society.

It was with this instinct — not to design a new social structure, but to make it possible for the present system to evolve naturally into a new and flexible society — that the American people turned to their Government. From their impulse arose what is called the Social Security Program of the Federal Government. Actually it is not a program at all, but is rather a system of social insurance designed to take care of some of the special strains and inequalities which had developed.

MOTHERS AND CHILDREN FIRST

For example, during the first years of the depression, the Government became vitally concerned with the welfare of children. This concern took a number of different forms. By grants of money to the states, under the Social Security Act, the Government established a child-welfare service for rural communities and a dependent children's program. These activities were under the supervision of the Social Security Board and the Children's Bureau in the Department of Labor. Through the latter, more than seven hundred and fifty thousand children whose homes would have been broken up are being cared for by their own relatives, with allowances from the State and Federal Governments.

At the same time the Government's work-relief program conducted a nation-wide system of school-lunches, nursery-schools, and crèches for the children of the needy; innumerable child-health activities and the construction of thousands of schools. The industrial legislation of the same period banned child-labor, first through the N.R.A. codes and then, when the Supreme Court vetoed this emergency legislation, through the Wages and Hours Act, which forbids labor by persons under sixteen years of age in all but local industries.

YOUTH HAS A CHANCE

For the 'Lost Generation' — those between the ages of sixteen and twenty-four — the Government first established the C.C.C., which has cared for over two million young Americans during the last eight years, has given them a chance to see and serve their country, has built them up physically and mentally. For others of this 'Lost Generation,' the National Youth Administration was established.

With a monthly payroll of nearly seven million dollars, it enabled the recipients to complete their education and training for useful and responsible work, and aided the flow of income into the hands of the mass of the American people. Through its Student Aid Program, N.Y.A. has kept more than five hundred thousand students in schools; through its work-projects, it has taken care of two hundred and eighty thousand other youngsters; through its Guidance and Placement Divisions, it is finding jobs for the graduates of its training-courses in all of our large cities and most of our states. It has specialized in training machine-workers for defense and has become an important adjunct to national safety. The Department of Labor also conducts training campaigns for apprenticeship in industry, while the Vocational Training Division of the Office of Education is also helping in this field, as are the 4-H Clubs fostered by the Department of Agriculture.

FAIR DEAL FOR THE ADULT

For the adult workers has come the Fair Labor Standards Act — a floor under wages and a ceiling over hours — with standard wages rising slowly from twenty-five to forty cents an hour and standard hours dropping from forty-four to forty hours a week. This law is under the administration of the Department of Labor. To this measure is added the National Labor Relations Act, which encourages industrial workers to protect their economic position by collective bargaining — a potent factor in job security. To make these measures a reality, there is the Work Projects Administration, which gave jobs to nine and a half million able-bodied unemployed citizens in less than five years. This work-relief system is essential to economic security, for un-

employment is robbed of its terrors so long as it is possible to obtain a Government relief job.¹

At the same time a system of payroll taxes and job-insurance is administered by the Social Security Board, whose Board of Employment Security is also active in helping workers find re-employment. During 1939, this one agency found 2,700,000 jobs in private industry and 800,000 in public employment through a nation-wide system of offices. The Social Security Act set up a system of Unemployment Compensation, under state laws, but with the Federal Government paying the cost of administration. This has become a national system which covers more than 28,000,000 wage-earners, and pays out-of-work benefits of half-pay — up to

¹ As an example of the direct effects of this type of social legislation, here is a quotation from a speech delivered by the Administrator of the Fair Labor Standards Act on January 28, 1941:

'I recall the report of one of our inspectors, which might be called a case history of the transformation that has taken place in one New Jersey town.

'He had known this particular town for a good many years and had been there quite often, and he said that in the old days it was notorious for low wages and for the long hours the people toiled. The mothers usually had to work to help support the family, because the husband's earnings were almost never adequate. At the earliest moment the law would permit the children were snatched from school and sent into the factories.

'The favorite outdoor sport among the boys was to hang around the street corners, throw stones through the schoolhouse windows and brickbats at the policemen. The girls — but perhaps it will be just as well not to go into that. There was little pride in home-ownership. The unpainted houses had fallen into dilapidation. Weeds grew in the dooryards. The floors in the homes of the workers usually were bare and there seldom were curtains at the windows.

'Then came the Wages and Hours Law and shortly afterward the town underwent a change. Rugs began to appear on living-room floors and curtains at the windows. Mothers gave up factory work and remained at home to look after the babies. The children left the factories and returned to school. Flowers began to blossom in the dooryards. Broken windows were repaired, and the boys found other pastimes more interesting than making life miserable for the corner cop. The policemen said they now had little to do.

'This is but one small factory town, but it stands as a monument to the social usefulness of the Wages and Hours Law.'

a maximum of fifteen dollars a week — for sixteen weeks. There are also Social Security Board programs for assistance to the needy blind, for maternal aid, and for women in industry. For the old and dependent there is also a national system of old-age pensions.

‘SENIOR CITIZENS’

One of the results of the depression was the appearance of wide-scale poverty and dependence among the ‘senior citizens,’ who had been stripped of their savings by the bank failures, etc., or whose children had lost the financial means for their support. The Government matches dollar for dollar with state old-age pensions programs and is now aiding nearly two million old persons. There is also provision for old-age and survivors’ insurance, so that those who are now young and middle-aged may look forward to declining years without fear of the ‘poorhouse’ or the county farm. In case of death they know that there will be monthly payments for the widows, children, and parents of insured workers. Under this form of social insurance, workers in commerce and industry build benefit credits based on their own work and wages which will give them something to live on after the retirement age of sixty-five. Over forty-eight million social security accounts have been set up for working men and women under this program administered by the Social Security Board and its regional and field offices.

SOCIAL SECURITY A WALL FOR LAST RETREAT

So what? An enormous administrative personnel has been created by the Government, billions of dollars have been collected, an incredibly complex system of red tape and

identity-cards has been installed — all for the purpose of buttressing the security of the individual at those points where the social order is crumbling under the impact of economic change. It is all as dry as dust, as dull as ditch-water, and as dreary as death. It means that by incredible exertions and desperate political controversy, we have made it possible for the average man and woman to discount a few of the more obvious forms of insecurity. Efforts to extend social insurance to medical care were postponed by the selfish opposition of the medical profession, while the private insurance companies and the bulk of the industrial employers are far from reconciled to the social security system as a whole.

For it is not the goal of the American people to draw fifteen dollars a week for the first sixteen weeks of unemployment or to get twenty-five or thirty dollars a month after reaching the age of sixty-five. It is merely an incident, comparable to the landing of provisions for the starving settlers at Jamestown, to the more effective organization of society in order to distribute opportunity and not security more effectively. It is a stockade behind whose palisaded walls hard-pressed groups can take shelter, and everybody knows that you can't live forever inside a fort.

The real work of the American people during the nineteen-thirties was accomplished, not in the construction of these 'social security' lines of retreat, but in the redistribution of income to the mass of the American people. During the nineteen-twenties it was a theory of government that if the big industrial corporations, big banks, and big business enterprises were lavishly financed, enough of the proceeds would trickle down to the whole population — under a system of free enterprise — to provide for both opportunity and welfare. This theory was abandoned only because it

did not work that way after 1929, but the philosophy still lingers on in many of the nooks and crannies — or crooks and nannies — in both Congress and the financial system.

THE PLAN FOR ADVANCE

Any honest appraisal of a money economy like that of the United States must begin by recognizing that the road to national reconstruction lies through the redistribution of money-income. So long as the mass of the American people lack the money with which to buy the food, clothing, shelter, and happiness which their families need, so long will American business suffer from overproduction, underconsumption, lack of confidence, or overcapitalization. For this reason, in the nineteen-thirties, we deliberately pushed aside the sentimental theories of socialism, capitalism, communism, and fascism, and proceeded to rearrange the income of the mass of the American nation. To do so violated the deepest instincts of our financial system and our ingrained sense of thrift, but it was obviously the most simple, direct, and quickest way in which to achieve the desired result.

It was obvious that drastic action was needed. Between 1910 and 1929, we had slowly increased the national income from about thirty billion dollars a year to nearly eighty billions. Following the Panic of 1929, our income dropped back in 1932 to about forty billion dollars a year — the equivalent in purchasing-power of our 1910 national income for a population which had increased by thirty million in the last twenty years. No financial system in the world could stand such a strain. Banks toppled by hundreds, depositors and investors were ruined, factories, mines, and mills closed down, crops rotted in the fields as mortgages on farms were foreclosed, business men went bankrupt, and unemployment

became so prevalent that in March, 1933, there were approximately fifteen million people in the United States, able to work, seeking work, and unable to find work.

With a magnificent disregard for theory, the National Government — both the Administration and Congress — proceeded to devise a number of measures (all of doubtful legality) by which the mass of the American people were enabled to lay their hands on sufficient money-income with which to support their families and satisfy their creditors. After eight years of effort, with some reverses owing both to adverse judicial decisions and to unwise administrative measures, the national income had again been driven up to the eighty-billion-dollar level associated with the famous figures of 1929. This had been achieved at the cost of a huge national debt and with the substantial aid of a defense industrial boom arising out of the European War, involving us in what amounted to war economy, but without serious price inflation and without substantial injustice to legitimate investment.

What prevented both price inflation and economic injury to productive capital was the Government's avoidance of the 'dole,' or rather the Administration's insistence that no money should be paid out of the Federal Treasury except for the performance of certain services deemed beneficial to the national economy. Thus the principle of work-relief insured that money released as income through a free-spending policy should be harnessed to the creation of tangible social and economic values. This was America's contribution to the technique of dealing with the world-wide economic crisis, and it was a valuable one. It reduced money from a master to a servant and protected the interests of the nation as a whole, while serving the needs of the dispossessed and disadvantaged elements.

PAYING OUT THE MONEY TO REDISTRIBUTE WEALTH

First in the order of events came the Civilian Conservation Corps, through which young men and boys were given employment on our national domain. These boys were paid thirty dollars a month, but twenty-two dollars of that sum was sent to their families as allowances for relief. The total of C.C.C. funds thus released amounted in six years to more than two billion dollars.

Even before the change of policies and administrations on March 4, 1933, a national unemployment relief system was established, which has taken at least three different forms in the intervening period: the Federal Emergency Relief Administration, the Civil Works Administration, and the Works Progress Administration (later altered to the Work Projects Administration, without change of functions or initials). By the end of October, 1940, this system of work relief had expended a total of more than \$8,700,000,000 in relief wages, purchases of materials and administrative costs. The F.E.R.A. alone tossed three billion dollars into the states for use in food or work relief. The Civil Works Administration, which followed the F.E.R.A., by January, 1934, had over 4,300,000 people on the relief payroll, the highest number in recorded history. W.P.A. has maintained an average of two million relief-workers on its rolls throughout the six years of its existence — paying them 'security wages' on a scale sufficient to support life and to maintain skill and self-respect.

The various farm-relief programs, which began with the Agricultural Adjustment Administration and continued with a variety of measures (Farm Security, Farm Tenancy, Soil Conservation, etc.), are calculated to have poured over \$3,700,000,000 into the hands of the farmers, in the past

seven years, in the form of direct subsidies, benefit payments, and export subsidies, in return for acreage-reduction and soil-conservation measures. This was in addition to the two million farm families on the F.E.R.A. rolls and the loans, etc., granted through the Farm Security and allied programs.

At the same time an extensive program of 'pump-priming,' designed to stimulate heavy industry, began under a Federal Emergency Administration of Public Works. By the end of March, 1939, when this program began to taper off, the P.W.A. had completed nearly thirty-five thousand important projects, producing nearly two billion man-hours of labor with payrolls and wages amounting to nearly a billion and a quarter of dollars.

While the Government was pursuing this policy of 'free spending,' it first recommended and then imposed similar practices on private business and industry. The N.I.R.A. of 1933 was a device by which business men were permitted to form modified trusts, under Government supervision, subject to protection of the public against price-gouging and to assuring labor fair standards of pay and hours of work. When this system was found to be unconstitutional, the Government devised the National Labor Relations Act and the Fair Labor Standards (Wages and Hours) Act, both of which had as their economic object increased purchasing-power for the mass of the American wage-earners.

LEVELING THE WEALTH OF THE REGIONS

One important feature of this entire system of spending was its effort to maintain regional purchasing-power, as well as to distribute purchasing-power to disadvantaged economic groups. Owing to a variety of causes, partly

political and partly economic, the West and the South had become financially dependent upon the northeastern region of the United States. During the depression, the Northeast had tended to drain funds from the rest of the nation, leaving whole commonwealths and vast areas without effective financial support. By taxing and borrowing from the Northeast and spending or lending to the rest of the country, a steady flow of funds was maintained in commerce and the entire nation was enabled to function as a whole.

As an example, the state of Mississippi, which is one of the least prosperous of the nation, contributing only a few million dollars to the Federal Treasury in taxes each year, received in the single year of 1939-40 a total of \$83,510,000 in direct federal expenditures, in addition to federal loans amounting to nearly six million dollars. At the same time New York State, which pays over a billion dollars a year into the Federal Treasury, received loans of slightly under \$85,000,000 and direct federal expenditures of about a quarter of a billion dollars — most of which went for the direct relief of New York's numerous unemployed. The fact that after seven years of this program, Mississippi had received nearly half a billion dollars of Government funds without becoming appreciably richer, while New York State had paid out at least twice as much money in federal taxes as New York had got back from the national spending-program without becoming appreciably poorer, was proof of the essential justice of the policy. Equally convincing was the fact that profitable employment increased throughout the nation, even faster than the increase in population, while strikes diminished and business profits reached and passed the levels of 1929.

Figures make unromantic reading, even when sanctified by the dollar sign so dear to the economists, but ours is a

dollar economy, and the entire fantastic monetary history of the last eight years — repeal of the gold standard, devaluation of the dollar, gold-purchase, silver-purchase, deficit financing, solemn burial of our bullion at Fort Knox, Kentucky, and Denver, Colorado, Stabilization Fund, debt-limit, etc. — is an important chapter in the story of our attempt to remake our nation. Fortunately for those not adept in the grisly art of extracting pleasure from statistics, there is one clear, simple clue to the labyrinth of our public finance. It is the almost savage determination of the Government to find ways and means to maintain the purchasing-power of the mass of the American people, by paying out money to significant masses of necessitous people, in return for work and services in the public interest. In promoting this policy — as an alternative to revolution or anarchy — the Government explored and mapped new social and economic frontiers. The future history-books may come to rate men like Ickes and Hopkins along with Lewis and Clark, or Grant and Lee, and find that their discoveries and achievements in the uncharted wilderness of social economics deserve to rank alongside the Louisiana Purchase and the Wilderness Campaign. But their achievement was at root the achievement of all the people, without whose acquiescence or support it would never have proved possible to maintain the flow of dollars through the channels that not only turn the wheels of industry but support and nourish the men, women, and children who are America.

CHAPTER V

SELF-RESPECT

TAKING NIGHTMARE OUT OF THE AMERICAN DREAM

As the ill-fated Hoover Administration dragged on, there were other signs to show that the American people had come to the end of an era. There was a growing apathy, a numb fatalism, which held that it was impossible to do anything about anything; standards began to be lowered and morale declined. Individual and communal self-respect dwindled; the rich began buying hide-outs in the rural South, the remote West, the West Indies, and in Canada, and stocked their refuges with canned goods; the mass of people became neglectful of health and appearance. Teeth decayed, serious illnesses were met with nostrums, houses fell into disrepair, schools were closed down, and public servants were unpaid. Quack notions for the painless cure of economic ills by planning vied with pathetic faith that some morning we should all wake up and find that United States Steel was quoted at 200 and that prices had risen overnight. As hungry men and desperate women milled around despondently in the city streets and the police-whistles shrilled and the clubs cracked the heads of strikers, it seemed that the American dream had come to be a waking nightmare.

During the eight years which followed this mood of despondency, we have dealt one by one with the various problems which gave evidence of lowered standards and national

loss of self-respect. We have tackled the national health problem; we have begun to rehouse the people of this nation; we have vitalized and expanded the many public services required by a civilized community. We have made more progress in these new spheres of public action in the last few years than had proved possible — or profitable — during the last few generations of business as usual. We have discarded the notion that health was the business of the American Medical Association, that housing concerned only the building-trades and the real-estate agent, that the best form of local government was that form which reduced taxes and cut down on public services. As we tackled these problems, we made many painful discoveries.

THE MELTING POT BREWED SICKNESS

Among them was the fact that ours is a sickly nation. Our newspapers and magazines are packed with advertisements of medicines and tonics. The average American drugstore has shelves upon shelves of patented remedies. Serious diseases are endemic among wide groups of people and over extensive areas of the country. Ailments due to dirt, poverty, and insufficient or improper diet condemn millions of Americans to ill-health. Eyes and teeth are frequently diseased. Mortality statistics illuminate the fact that many preventable or curable diseases run unchecked. Medical care is too expensive or is unavailable for large numbers of our people. Public health is an important factor both for economic production and military defense, yet we do not compare in physique or hardiness to the peoples of other continents.

There were perfectly valid reasons for all these things. In the first place, in no other country is there such a tre-

mendous mixture of races originally specialized in other climates and other economic orders. Not perhaps for another five hundred years will it be biologically possible to achieve a stable race in the North American Continent. In the meantime, the processes of natural selection and breeding out of weak strains will continue to afflict the American nation with an undue amount of illness and disease.

Equally important was the fact that the settlement of this continent coincided with a dietary revolution for the European stock from which this country was peopled. The wide use of sugar and citrus fruits was only an element in the process. Another important element was the use of distilled liquor — chiefly rum and whiskey — instead of the ancient beverages of wine, beer, and ale. Another element was the discovery and the use — and misuse — of tobacco. This revolution still continues, with important discoveries in the matter of vitamins, ultra-violet rays, and other factors of dynamic importance in diet. And all this set of forces was tested on the human material in a New World whose climate was entirely distinct from that of western Europe, the Mediterranean Basin, and the African tropics, from which came the settlers and slaves who developed what was to be the United States.

The result was a medical problem without parallel in human experience, especially as the speeding-up of communications and the intermeshing of human relationships automatically accelerated the spread of infections. Normally, in the United States almost a million people are confined to hospital beds every day. Another four million stay away from school or jobs because they are ill. While most of these people suffer from minor ailments, only a small percentage can be given aid or medical care because of lack of space in public hospitals.

SHORTAGE OF FOUR HUNDRED THOUSAND HOSPITAL BEDS

There are about 1,100,000 hospitals beds in the nation to take care of all kinds of patients, and the Public Health Service reckons that about 400,000 more are needed to meet standard medical requirements. In July, 1938, President Roosevelt called a Public Health Conference, growing out of an Inter-Departmental Committee to Coordinate Health and Welfare Activities. The Conference established a technical committee to make a survey of the nation's health problem. It was found that forty per cent of the counties in the United States were without registered hospitals, that twenty-eight states were insufficiently supplied with hospitals, and that there was a normal need for 25,000 hospital beds each year. This was in spite of the record of the Public Works Administration in creating over 120,000 hospital beds during its life as a Government agency.

In fact, the P.W.A. alone was responsible for thirty-five per cent of the number of new hospitals erected in 1933-39 — both hospitals owned by local agencies and by the Government. These new federal hospitals were for mental diseases, tuberculosis, general medical care and homes for the aged and indigent. For example, in New Orleans, P.W.A. erected a charity hospital, sponsored by the state of Louisiana, with room for 3000 patients — a 22-story medical show-place, the first hospital whose operating-rooms were equipped with explosion-proof operating lights. P.W.A. also helped add a 300-bed extension to the famous Massachusetts General Hospital in Boston, and built hospitals in Dallas, Pittsburgh, Baltimore, Miami, and a score of other communities.

HOSPITALS FOR SPECIAL SICKNESSES

The urgent need for care of the insane is one justification of federal action. Each year the nation has the task of treating 11,500 additional mental cases. While this does not exactly mean that we are getting crazier every year, it does reflect the break-up of the family unit which used to keep its ill at home and the decreasing financial ability of people so care for their own dependents. As a result of the federal program, Connecticut, New York, New Jersey, North Carolina, and Arkansas have almost caught up with their needs for mental hospitals — others have not.

Another urgently necessary field is provision for tuberculosis cases. For example, by 1927 the toll from tuberculosis in Florida had reached the high figure of a thousand a year. There were reckoned to be at least 11,000 known cases in the state, and there were only 185 beds in the state hospitals for treating the disease. The Florida Legislature took action, but there was no money for hospitals, so the P.W.A. stepped in with \$639,890 for a completely equipped sanitarium at Orlando — the first of five units authorized by the state. In all, the P.W.A. has provided 22,000 new beds for the care of tuberculosis patients throughout the country.

The hospital at Rolla, Missouri, is unique as a type of special hospital erected by P.W.A. This was designed to treat the dread eye-disease of trachoma, which was making great inroads in the state. This agency also helped build medical and dental schools. At the same time the despised W.P.A. using relief labor, constructed 156 hospitals and rebuilt or repaired 1436, as well as additions to 66 others. Since few Americans would welcome a condition in which lunatics or persons suffering from highly contagious and dangerous diseases were allowed at large, there was little

opposition to this type of program — even though health and hospitalization had traditionally been exclusively a matter for state, municipal, or private enterprise.

PROVIDING PURE WATER

Neither was there any public outcry against federal action to control sewage. For a number of centuries, the human race had known that it was unwholesome to drink sewage. Tea-drinking in Asia and the use of alcoholic beverages in the Occident had become institutions largely as a result of pollution in the waters. As a matter of fact, stream-pollution is a serious economic factor throughout this nation. Only a few years ago, the sewage of Buffalo so tainted the Niagara River (used for drinking water by a number of cities downstream) that there was an outbreak of thousands of cases of sickness. For many years the dumping of New York City's sewage, refuse, and garbage afflicted the New Jersey seacoast with illness and bad smells and deplorably reduced the value of seashore real estate. Many extensive areas in Pennsylvania and other mining states bear witness to the ravages caused by mining wastes. Towns in Iowa, Wisconsin, Illinois, and practically every other populous state maintained the disease-breeding dump-grounds.

An indication of the economic losses of uncontrolled disposal of waste is presented in the report of the joint survey of the upper Mississippi River made by the Minnesota and Wisconsin State Departments of Health. The report showed an annual loss to commercial fishermen of \$95,000; annual damage to sport-fishing and related industries, \$35,000; and decreased property values in the Twin Cities of St. Paul and Minneapolis of about \$2,000,000. Today a fourth of urban sewage is properly treated, while the waste of 35,000,-

000 people in cities is discharged, without treatment, into bodies of water.

In dealing with this elementary problem, the P.W.A. has completed 4651 projects valued at nearly a billion dollars: 1529 sewer systems, 464 sanitary sewers, 196 sewer and water projects, 2421 water systems, in addition to 252 water mains, 182 reservoirs, and 1896 waterworks. At the same time the W.P.A. did an impressive job in this humble and unsavory field, constructing pumping-stations, water-treatment plants, over 12,000 miles of water mains, and over 18,000 miles of storm and sanitary sewers. These are only statistics, but they are the sort of figures which lie behind the reduced risk of typhoid fever and other water-borne diseases which are always unpleasant and often fatal.

Similarly, in seven years the W.P.A. has built water-treatment plants with a total capacity of over 180,000,000 gallons a day, and has drilled and improved nearly 5000 new wells. In addition, W.P.A. has constructed 1,761,000 sanitary privies throughout the nation, has sealed 173,000 abandoned mine-openings, and has done extensive work on mosquito control, to check malaria. There are also garbage- and rubbish-disposal plants erected with federal funds. All in all, it is estimated that, as a result of these allied programs, over a fifth of the American people have received access to new or improved water-supplies in the last eight years, while our great rivers are slowly becoming decontaminated.

MOPPING UP ON CANCER AND SYPHILIS

So much for the A B C of preventive public-health measures. More dramatic is the public drive against certain diseases undertaken by the Federal Government in recent

years. A nation-wide program, financially aided by grants to the states and technically assisted by trained administration and scientific research, has been carried on by the Public Health Service under the Social Security Act.

To this Service goes credit for the first intensive special campaigns in this country against such enemies of human life as cancer and syphilis.

National defense was deeply concerned with the public-health program. In 1938, seventy-two per cent of men seeking to enlist in the armed forces of the United States had to be rejected because of poor eyesight, bad teeth, or poor physical development. A man with syphilis, gonorrhea, tuberculosis, pellagra, malaria, or hookworm is not a very good soldier. Neither is he a very efficient workman. It is not pleasant to think that these diseases are widely spread, even among people with whom we come in innocent contact in restaurants, lunchrooms, taxicabs, street-cars, and office buildings. Hence the underlying determination of the American people to rid themselves of those diseases of dirt and poverty and ignorance, as well as to concentrate on other foes — like cancer and infantile paralysis — which care not whether their victims are rich, well-born, and well-educated.

MEDICINE FOR ALL WHO NEED IT

Faced with the fact that medical care can be least afforded by the lowest-income groups who need it most, the Inter-Departmental Committee to Coordinate Health and Welfare Activities has reported to the President that this need can be met only by 'the distribution of the costs among groups of people and over periods of time.' A bill providing for a comprehensive national health program, to meet the nation's medical needs, has been introduced in Congress by Senator Robert F. Wagner of New York.

Public acceptance of the idea of group-medicine has been easy. But the plan for what was called 'socialized medicine' met with furious resistance from the organized medical profession, just as the food-and-drug manufacturers bitterly resisted proposals to modernize the antiquated Food-and-Drug Law for the protection of the public. The American Medical Association went so far as to organize a professional and hospital boycott of a Washington group-health association and were convicted under the Anti-Trust Laws as a conspiracy in restraint of trade.

This, however, was in a rich urban market for private practitioners. In the country regions, there were few doctors and less opposition, and the Farm Security Administration experienced little trouble in setting up group-medical service for eighty thousand farm families involved in the federal rehabilitation program. The system is simple: each family pays in anywhere between fifteen and thirty dollars a year — depending on locality and average income — to a general pool for medical service. Service is supplied as needed and the doctors send their bills to the pool and the bills are paid monthly on a prorated basis. In Kansas, Nebraska, and Arkansas, this system is applied to dental care as well as to medical care. Each plan is subject to annual review by the doctors as well as the patients. Even so, there was opposition from organized medicine. In one Mid-Western state, the head of the State Medical Association declared flatly that the whole scheme was in conflict with 'medical ethics.' Yet by the end of 1940, group-health plans organized by the F.S.A. were in operation in six hundred and thirty-four counties in thirty-two different states, and the resistance of the bureaucrats in the American Medical Association had been broken by court action and unfavorable publicity.

Nowhere else is the need for practical socialism so clear

and unmistakable as in the field of health; it would probably have occurred to none but Doctor Morris Fishbein and his fellow propagandists to see a national menace in the proposal to extend medical care to that portion of our people who most need it. Until this position is formally reversed by the American Medical Association, organized medicine must bear the shame of having opposed, obstructed, and delayed the healing of the sick, which to a layman at least would seem to be the underlying principle of 'medical ethics.'

'ILL-HOUSED'

In the matter of housing, there were similar obstructions, including racketeering labor unions, monopolistic manipulation of building-codes and municipal regulations, corrupt rings of building-supply businesses and contractors, with collusion in banking and other investment agencies which dreaded the advent of cheaper and more efficient housing. Owing both to these factors and to the unbridled speculation in real estate, there was so serious a housing shortage and such bad housing conditions throughout the nation that it constituted a health hazard and a social menace. Every competent survey supported the argument that bad housing was both a social danger and an economic waste — that bad housing cost the community more than the expense of constructing good housing.

This has been amply demonstrated in surveys of urban slums. In Indianapolis, for example, it was found that \$27.29 per capita was spent in the congested districts for fire, police, and public-health protection, as compared with \$4 per person in other areas. In other words, the community was forced to subsidize the average slum-dweller to nearly twenty-five dollars a year in order to protect itself from the

consequences of bad housing. Further evidence is supplied by the 'Old Law' tenements in New York City, rookeries built before the passage of safety laws and other safeguards with respect to light and air-space. Here deaths from tuberculosis are 220 per cent higher than in the 'New Law' tenements; deaths from spinal meningitis are 247 per cent higher; deaths from all causes are 87 per cent higher. No section of the nation was found immune from this condition.

As a result of the depression which began in 1929, there was an eight-year lag in home-building, which resulted in serious overcrowding. The countryside was not immune, since, with unemployment in the cities, children not only 'backed up' on the farm, but relatives who had moved to the cities returned to the country to find refuge with their parents' friends, or in-laws. The effect on community health and morals was serious. Disease and crime marched through the hovels of the ill-housed. Private capital had built few replacements for outworn homes. Even before the depression, ten million American families, in both city and country, lived under housing conditions inadequate to protect health and safety. There is an estimate by the Government that almost six million new dwellings are needed to relieve the housing shortage and clear away the worst of the slums. In addition to those, ten million more houses will be needed by 1950 — a total of sixteen million new dwelling units if the American people are to be as well stabled as their own domestic animals.

A number of federal programs were started in the nineteen thirties on a scale designed to demonstrate the practicality of providing shelter for that 'one third of a nation' which is ill-housed, ill-clad, and ill-nourished.

F.H.A., U.S.H.A., F.S.A.

The chief agencies in this program were the Federal Housing Administration, the United States Housing Authority, and the Farm Security Administration. In 1934, the Federal Housing Act created a similar link between private investment and the Government. The Federal Housing Administration made it possible for over 470,000 city families to build or finance their homes on easier terms than ever before available. Amendments to the Act, adopted in 1938, extended its operation to farms and farm-homes, with the interesting provisions that construction should be according to sound and sanitary standards and that the loans should be fitted to the family budgets involved. Home modernization was another feature of this law, resulting in repair loans by which over two million home-owners received nearly a billion dollars for improving their property. In order to encourage community planning, the F.H.A. also accepted for insurance mortgages on 279 rental projects designed to house about 33,000 families in pleasant surroundings with large provision for playgrounds and parks.

The F.H.A. works directly through and with private enterprise in the construction field. More than two million people are now living in houses built or financed under the F.H.A. home-ownership program. An additional hundred thousand are living in large-scale housing projects which private companies have built for rent under F.H.A.

Among other things, this program assured to the poor of the next generation an adequate supply of second-hand housing. The United States Housing Authority was charged with the duty of blasting away the 'jalopy' houses of our slums, beginning the nation's first permanent large-scale housing program in November, 1937. In this program the

Authority was commissioned to lend up to \$800,000,000 to local housing authorities for the construction of low-rent housing and to make annual contributions totaling up to \$28,000,000 a year to enable the completed projects to operate on a low-rent basis. Thirty-eight states followed the lead of the Federal Government and passed housing laws enabling local communities to take part in this program. In this way, local authorities will be able to provide over 160,000 decent and adequate homes at rents ranging from under two dollars to around five dollars a room per month.

The United States Housing Authority has financed more than 121,000 modern, low-rent dwellings and the moving of 640,000 people from sub-standard living quarters to these new homes.

The Farm Security Administration has made possible the building of more than 12,000 houses by former tenants who are now purchasing farms through the Farm Security Program. Since the average cost of these houses is \$1313, these are the only low-cost (as distinguished from low-rent) houses in the present federal housing program. While the Public Works Administration was in the housing field, this agency granted over \$135,000,000 for fifty-one low-cost housing projects, which were later transferred to the United States Housing Authority.

FURNISHING CREDIT FOR THE HOMES OF AMERICA

The bulwarks of the new order in housing are simple: the Federal Home Loan Bank System — twelve regional banks in which home-financing concerns may become members and receive long-term loans at low interest rates; the Federal Savings and Loan System — providing for the organization of locally owned mutual thrift associations in which the sav-

ings of each investor are insured by the Government up to five thousand dollars, the funds being loaned in amounts up to twenty thousand dollars for home-building; and the National Mortgage Association — an agency designed to create a market for insured mortgages to fill in the gaps in making loans where other sources of capital are not available.

To make it possible for these agencies to operate, the indispensable first step was to save from foreclosure homes already occupied. The Home Owners' Loan Corporation was set up by the Federal Government as the world's largest home-financing agency. In its three-year lending activity, this agency loaned over three billion dollars to more than a million home-owners. It reached into every county and substituted for a system of inflated mortgages, at interest rates from nine to eighteen per cent, single loans payable in fifteen years at four and a half per cent interest. This program put the vast majority of those it aided on the road to homeownership, debt-free, and by reconditioning, renting, or selling the few houses turned back by foreclosure, justified itself as an economic enterprise.

At the same time the Farm Credit Administration enabled about half a million farmers to save their homes by similar financing or refinancing their loans at lower interest rates.

In addition to this general program, there have been a number of related federal programs. These include, of course, such things as the construction of scores of thousands of sanitary privies by the W.P.A. in rural regions and of W.P.A. sewer-systems in towns and villages. Electricity and running water have been brought to 750,000 farm homes in forty-four states. Between 1935 and 1940 the number of our 7,000,000 farms served by central power stations increased from 744,000 to 1,700,000. Through the Electric Home and Farm Authority, it has been made possible for rural home-

owners to purchase such bed-rock housing equipment as water pumps, sewage-disposal units, attic-ventilating fans, refrigerators, water-heaters, and electric ranges. Benefiting urban homes, the Public Works Administration has built 229 municipal power plants, 2411 water systems, and 25 gas plants.

Above all, the Government has set a home standard — what an American home should be — a fact as basic as the housing policy itself. In the process of developing this program, the American people got down to cases and decided that it did not profit a man if he gained title to a second-hand Chevrolet and lost his own health through hookworm, tuberculosis, or other diseases of dirt, darkness, and poverty. Yet so much had been neglected and so much was to be done that it was possible to chart a whole generation's effort for the American people on a scale comparable to that of war and national defense. In this way it was calculated that the health, welfare, and morale of the American work-stock could be maintained and improved on a scale which would begin to compare with the effects already realized with their cattle, swine, and poultry. At a minimum, electric light, inside water, inside toilets, sound and durable construction, and such modern equipment as is needed to preserve perishable food and to economize fuel will be standard for the American people after 1950. This means that within the next ten years we shall be required to supply one third of our 132,000,000 inhabitants with the bare necessities of modern housing. Revolutions have been fought and wars have been waged for less than this.

HOW WIDE THE SCOPE OF GOVERNMENT SERVICE

Americans do not live by dollars or dynamos alone.

Neither bathtubs nor stethoscopes are the ultimate measure of the physical welfare. There are other factors, services, facilities, institutions, which aid the American people in their daily lives and occupations. Among these are roads and bridges, schools, jails, courthouses, and other public buildings, not to mention electrical equipment and other practical designs for living.

After eight years of intensive Government activity, it is almost impossible to find a single county — even a single hamlet — which has not something to show for the expenditure of labor, money, material, and intelligence to help the daily activities of the average man, woman, and child. Some of these structures are as enormous as the Golden Gate Bridge; others are as inconspicuous as a W.P.A. culvert. Some of the federal buildings erected under this program are magnificent technical and artistic creations; all are calculated to aid directly in normal, practical activities of the citizens of the United States.

To summarize all of these undertakings is difficult, because they are so heterogeneous that each project is almost uniquely significant. It is, however, possible to select, almost at random, a number of instances which illustrate the diversity of these service facilities created by the people, through their Government, for their own use.

FOR ONE THING, IT REANNEXED KEY WEST

Item. The P.W.A. spent nearly half a billion dollars for 1496 street and highway projects, not to mention the half-million miles of rural roads and fifty thousand miles of city streets to the credit of the W.P.A. To understand what those figures mean, consider the single Florida-Key West Ocean Highway, by which Key West was reannexed to the United States.

Once a harbor for pirates who stopped to fill their water-kegs from the springs of the Florida keys, Key West burst into history as the haunt of Henry Morgan and Black Caesar in the days of the buccaneers. Later and lazier pirates were content to change the navigation marks and loot the wrecked ships which rewarded their enterprise. In 1822, the United States Navy cleaned up Key West. A naval base was established and the city grew famous for its colony of expert Cuban cigarmakers, reaching its zenith at the time of the Spanish-American War.

Later, a series of eleven bridges from key to key connected the string of 'dots' and gave Key West rail connections with Miami as well as ship connections with Havana and world markets. But people drifted to the mainland, and by 1935 those who remained were largely on the relief rolls. In that year came one of the worst of the Florida hurricanes. The city was saved, but the life-line to the mainland disappeared as the waves swept away the rail-bed and the rails were left twisted and rusty. Key West seemed doomed to become a 'ghost-town' — a fate from which it was rescued by one of the most spectacular highway systems in the world.

To rehabilitate the city, the P.W.A. stepped in with a loan of \$3,600,000 to buy and operate the new proposed bridge-highway. A hard-surfaced road, twenty feet wide and thirty-four miles long, was built to the mainland. It loops from key to key, jumping over water-gaps on old railroad trestles — one of which is seven miles long, the longest bridge in the world — and at times the roadbed is sixty feet above the water. So Key West's business has improved. Tourists provide a livelihood for the city's inhabitants. In the first nine months of its operation, the Key West causeway carried 108,000 vehicles with nearly 200,000 passengers — few if any of whom left the city without leaving some money in the

hands of those Key Westians who stayed and fought for survival in the picturesque old town on the Spanish Main.

NUMBER TWO EXAMPLE: SCHOOL-BUILDING

Item. For eight years the Government has been building schools regardless of the theory that education is a local enterprise. P.W.A. invested well over half a billion dollars in 7322 school-buildings valued at over a billion dollars. W.P.A. is responsible for building, repairing, or making additions to more than 33,000 schools — not counting auditoriums, gymnasiums, and other recreational adjuncts. Here is what it means in one community.

The evening was like the end of any other California 'sunkist' day. People were listening to the five-forty-five news broadcast on their radios. Many were on their way home from offices and factories. The street-cars were jammed. The department-store clerks were beginning to straighten out their tables and shelves, rearranging the stock before closing time. Suddenly the earth seemed to jump a foot into the air and drop back. Buildings cracked. Pictures fell from the walls and the radios went dead. A street-car on Hollywood Boulevard stalled close to where a vacant building reminded Los Angeles of the recent bank panic. The street-car conductor noticed a crack straight across the front of the bank. He murmured; 'I figured it would take an earthquake to open that bank.'

The California earthquake of 1933 caused much damage, but its worst effects were visited on the schools of Los Angeles, Compton, Santa Anna, Huntington Park, and Long Beach. Had the temblor hit two hours earlier, with the children still at their classes, one of the most shocking tragedies in our history would have been recorded. For there had been some

scandalous hanky-panky in the construction of the schools. The California Legislature passed belated laws for strict inspection. But the damage was done, and the city and county of Los Angeles faced the necessity of rebuilding an entire large school system at a time when business was at a standstill and municipalities were wrestling with an ugly tax problem.

Nevertheless, the Los Angeles Board of Education appointed a board of forty-eight architects, engineers, and construction experts, and set to work. The P.W.A. supplied the capital for a project involving 536 school-buildings at a total cost of \$34,144,000. This was the largest school-building program ever undertaken in a single community, and for nearly three years the sound of hammers could be heard in every section of Los Angeles as every school-building was tested for safety, torn down if unsafe, and new ones constructed. Solidly built, earthquake-proof schools rapidly replaced tents, bungalows, and other temporary shelters used for schoolrooms. This was only one part of a P.W.A. program which created classroom accommodation for over two and a half million students throughout the nation.

THREE: TRIBOROUGH BRIDGE

Item. P.W.A. helped in the construction of nearly half a billion dollars' worth of bridges, viaducts, subways, and tunnels — 392 projects in all — in the period of 1933-40. W.P.A. in the same period built or repaired nearly eighty-five thousand of these structures.

What does a bridge do for a community?

About 1880 there were no bridges to link about forty cities and villages, on half a dozen islands and peninsulas, that were destined to grow into what is now known as

Greater New York. It was in 1883 that the Brooklyn Bridge was completed — in its day, one of the wonders of the world. Three more bridges were built during the next thirty years. By 1916, traffic over these bridges had passed 11,500,000 vehicles a year, choking the city's facilities. At that time, engineers suggested a bridge to link the fast-growing Bronx, Queens, and northern Manhattan sections of the city, but nothing was done. By 1925, traffic over the East River bridges grew to 55,000,000 vehicles a year. By the end of the decade, this figure had risen to the total of 83,000,000, and people began to stay at home rather than struggle with the traffic problems.

In 1929, the city of New York started the Triborough Bridge, but three years later, after spending \$5,000,000, the municipality had to give up. At this point the P.W.A. advanced grants and loans totaling nearly \$45,000,000; work was resumed on December 12, 1933. The result was an engineering marvel, an immense new artery of traffic, linking three of the city's five boroughs and reaching into the suburban communities with its 'feelers.'

Here was a practical illustration of the flow of industry into great public works. No sooner had contractors called for concrete, lumber, and steel than up in Maine and along the Hudson and Mississippi Rivers the cement factories started on the order for half a million cubic feet of concrete. Half a hundred concerns in Pennsylvania called men to the hearths and steel-mills. Great trees were felled on the Pacific coast and the railroads began to move their rolling-stock, filled with the needed materials. Five thousand men worked three shifts a day. The bridge had to open in July, 1936, owing to contract stipulations, and on July 11, 1936, at noon, President Roosevelt, Secretary Ickes of the Interior Department, and Commissioner Moses of New York City

watched the flash of scissors as the ribbon fluttered off into the air and a motorcade move across the spans.

The entire undertaking was based on the theory that it would be self-liquidating through the payment of tolls. The estimate called for 9,900,000 vehicles to use the bridge the first year of operation. The actual figure was 11,642,949. The second year surpassed the first.

In addition to the financial success of the Triborough Bridge, New York City acquired a new park on Randall's Island, where a stadium was used for Olympic try-outs the same day the bridge opened, and another park was established on Ward's Island. Then a committee, looking for a site for a 'World's Fair,' discovered Queens, and in Queens they found that the bridge ran by a huge, rat-infested dumping-ground. This dump was converted into Flushing Meadow Park, on which rose the World's Fair of 1939 and 1940. To the north, the city's great North Beach Airport — La Guardia Field — was constructed when the bridge brought the flats of North Beach within thirty minutes of downtown Manhattan. There was a real-estate boom in Queens. As a result of the financial success of the venture, the Triborough Bridge Authority has been able to build another structure — Whitestone Bridge — to the north, and the whole thing is paying off.

FOUR: COURTHOUSE AND JAIL

Item. Since men commit crimes or conduct lawsuits, the courthouse is one of the basic structures in American civilization. Under the recent construction program, the Federal Government has assisted in erecting 630 state, county, and municipal buildings, and city halls — at a cost of nearly \$150,000,000.

Take Gainesville, county seat of Ozark County, Missouri, famous for years as a town without a railroad, a courthouse, or even a church. Today, thanks to a grant from P.W.A., Gainesville has a \$36,000 two-story jail and courthouse. Progress comes to the Ozarks in the form of a jug.

FIVE: SALVAGING FROM HURRICANE DAMAGE

Item. The Government has never been held responsible for natural catastrophes. Yet it must accept their consequences and seek to mitigate them.

In the autumn of 1938, New England was hit by a hurricane which destroyed a tremendous number of trees and damaged New England forests. The United States Forest Service organized a salvage project which involved fire-hazard control on 200,000 acres. Roads and fire-lanes were cleared to the extent of 9750 miles. Agreements to purchase hurricane-felled timber were made with 12,350 landowners. Two thirds of a billion board-feet of logs were purchased as well as 66,000 cords of pulpwood, at a cost of \$8,000,000. Nearly half the lumber was resold to repay federal loans, etc., in such a way that the market was not disturbed. This neat piece of regional economic salvage followed a disaster in which for three weeks parts of New England were cut off, drinking-water was contaminated, and all available manpower from the W.P.A., C.C.C., N.Y.A., Army, Coast Guard, and Navy had to be put at the service of the stricken communities.

SIX: 'YARDSTICKED' ELECTRICITY

Item. The cost of electricity is again something which used to be considered outside of the scope of federal action.

At most it was a matter for regulation by the states, but there the courts intervened with decisions which made regulation an illusion.

The history of what has happened, however, is told in three figures. During the period of 1910-23, the price of electric power averaged 18 cents per kilowatt hour. During the period of 1923-35, the price averaged 9 cents. During the period of 1935-40, the price was 4½ cents.

In that last period, a million farms were supplied with electricity through the activity of the Government and the 'yardstick' activity of the private utilities. As 1940 closed, the Rural Electrification Administration had loaned over \$350,000,000 to 791 cooperatives. Mileage of R.E.A. power-lines under operation was over 250,000 miles, and another 100,000 miles were projected under a construction program extending into 1942. This complete program will serve about 1,200,000 farms, apart from those reached by private utilities.

Government power-plants were erected throughout the nation, with a profusion that caused heartrending cries of economic anguish from the beneficiaries of the old order. Yet in June of 1941, the *New York Times*, which had led the fight against T.V.A., declared editorially that power publicly developed had ceased to be a political issue.

PUBLIC AUTHORITY USED FOR THE GOOD OF THE PUBLIC

What does it all mean? Why should the Government, which in 1932 had strictly limited its sphere of activity and had scrupulously respected the rights of the individual to go hungry and of the states to go broke, eight years later assume a position of paternal responsibility for the health and housing of the American people and the maintenance of local services such as schools, bridges, and public utilities?

The only possible answer was that the American people themselves, whose sovereignty their Government represents, had decided that they wished to use the public authority to provide themselves with food, clothing, shelter, medical care, and other practical facilities. In the past, the American people had found it possible to obtain these things through individual or local enterprise, and they were impatient of political restraints upon their freedom. When the old methods failed to produce the old results, after a period of bewilderment and despair, they found that government rather than business was becoming the key to the American way of life. They picked up their Government and transformed it into a dominating social and economic agency. Warned by the prophets of disaster that they were selling their freedom for relief rations and that they were exchanging democracy for class war, they persisted in their course. The result was to save the American people from the defects in their own institutions by changing those institutions to match the needs of life on the continent of North America.

PROOF OF THE METHOD CAME WITH DEFENSE

The change was gradual and its acceptance was grudging. It was only when the need for national defense confronted the American people that they discovered the necessity for what they had been achieving. It was then that the methods of corporate business met the final test and failed. Responsible industrialists and business managers, representing great and proud American corporate enterprises, grossly underestimated the need for electric power, for aluminum, for steel. They discovered that the practice of maximum profits and minimum production was incapable of arming a nation or winning a war. They discovered that the slogan

of 'business as usual' led to a wave of strikes and profiteering in the necessities of life as well as those of death. They discovered that skill in lobbying for tax-concessions at Washington was no substitute for economic statesmanship and that alibis were no substitute for production. The result was that, before the national-defense program had been in existence for a year, it found the bitterest opponents of federal power-production demanding more kilowatts and begging the Government to supply the capital; it found a former president of the National Association of Manufacturers proclaiming that America was moving forward into a new economic era under Government leadership, and it found the most perfect industrial monopoly in modern America — the Aluminum Corporation of America, which had given a Secretary of the Treasury to the G.O.P. and a philosophy to the nineteen-twenties — charged by a Senate Committee with deliberate deception, refusal to develop its power facilities in order to avoid compliance with the federal statutes, and the crippling of the aircraft program in an effort to extort profits from the Government.

This, rather than the Panic of 1929, marked the final demise of the old business empire which began in Lincoln's first administration, for it showed that the methods and motives of corporate business conducted for profit were incompetent to defend the very economic order which had encouraged business for profit. Judged by this test, an era had come to an end and the people were ready to follow other leaders and support other methods in their quest for life, liberty, and happiness.

PART V

FREEDOM

CHAPTER I

THE END OF ISOLATION

IN THE BEGINNING WE CHERISHED MAINLY INDEPENDENCE

WHEN we declared an independence from the British Crown, it was with a dawning hope that the New World might cease to be a colonial adjunct of the Old. Nearly fifty years later, when we announced the Monroe Doctrine, it was in the belief that the Western Hemisphere would approach and solve its problems without referring them to the Great Powers of Europe for adjudication or consent. Nearly a century later, as the new world-balance of power began to shake American isolation, we entered a number of temporary arrangements — including our intervention in the First World War in 1917-18 — designed to relieve us of the Old-World preoccupation with politics and defense.

Then we discovered, with the rise of Hitler and the policies of the Axis, that we were again threatened by foreign foes and symptoms which envied our wealth and begrudged us our prosperity and possessions. The quarrel of these new powers of the Old World was not only with our form of government or our public opinion, but with our ownership of such great resources, our control of such gigantic power. The issue which presented itself was whether, in the twentieth century, European power might not be so organized as to restore the colonial status which the New World had shaken off in the period of 1776-1823.

As we approached the middle decades of the twentieth century, it became clear that our title to the continent was challenged from east and west, as our social system itself was challenged by new philosophies of government and new forms of human organization. For over a hundred years we had rested secure in the conviction of invulnerability. We believed that we were immune from the urgent problems of defense which had thwarted and tempered other nations.

OUR FAITH WAS IN THE OCEANS

We still believed that the great oceans in which we were an island hemisphere were insuperable barriers to any foreign foe. We thought of these oceans as we had thought of them when our ancestors first crossed them to make their homes in the New World — stormy weeks and even months of voyaging, sickness and short rations, and a hard time to keep alive on landing in America. This was in our blood, and we had enjoyed over a century of immunity under the protection of our ocean barriers. Thanks to the dimly understood attitude known as the Monroe Doctrine, we had made sure that the world-wide power of the British Navy would not be used against us, and we gloried in the idea of isolation. The fact that the New World had been invaded again and again since its discovery was readily forgotten. We thought that we were different and that we were free from the problems of national defense as no other nation had ever been free; that we had no direct responsibility for assuring the sort of world-order in which the need for permanent defense would not arise.

The second force which encouraged this dangerous fallacy was the belief that our numbers, wealth, intelligence, and resources were so vast that it was always possible to improvise

armaments on a scale sufficient to hurl back any invasion. Even during the Napoleonic Wars, when we pitted our puny resources against the British Empire, we had stood off the victors of Napoleon and had won a peace which had seemed perpetual. In our only conflicts with foreign powers — Spain, Mexico, and Germany — experience seemed to support the theory that the American people were inherently able to defeat any nation which presumed to stand in the way of our interests or our ideals. Hence the brains, the courage, the patriotism, and devotion which in other lands had been turned to the goals of honor, glory, service, and self-sacrifice, with us found no appropriate outlet except in business. We had no military caste and no munitions industry to dominate our politics — and this was well. What was not well was that the same devotion and energy which sought their reward in national service were diverted to the pursuit of private profit and the creation of economic enterprises which by reason of their very nature were incapable of self-discipline and self-sacrifice.

UNTIL TECHNOLOGY BRIDGED THE OCEANS

Yet, as the years rolled on, the basic assumptions of our national defense had crumbled. Oceans which had been but faulty barriers in the days of sailing-ships became highways in the days of steam, and with the airplane they shrank much as the English Channel had shrunk in the face of resourceful foes equipped with modern technology. The war which began in September, 1939, in Europe and in September, 1931, in Asia, was clearly the last war in which we could pretend to regard the oceans as ramparts, while the power of the British Navy to hold the passes of the Atlantic began to weaken to an extent which made us realize the

growing danger. At the same time the technique of modern war was so accelerated, its tactics were so refined, its affiliation with revolution and sabotage was so open, that we could no longer be confident in our ability to defend ourselves in time. The slow speed with which our National Defense Advisory Commission succeeded in mobilizing our industrial facilities was a grim reminder that neither our customary incentives nor our usual methods of production were adequate to protect our lives and our property.

Slowly, we began to realize that isolation was not a policy, but rather an historical condition which could not recur and which had outlived itself. Slowly, it came upon us that a policy of avoiding alliances was no defense in a world of nations where one by one the weaker fell victims to force and intrigue. Slowly, surely, we discovered that our true interest was to preserve the sort of world-order in which we had come to full nationhood and of which we were a product. Slowly, we laid aside our belief that we could rely upon individual initiative — on volunteers — either to man our armies, build our ships, tanks, and planes, or to supply the food and ammunition required for defense.

OVERBOARD WITH THE OLD IDEAS

Here again, we were forced to discard the lessons of the past, to jettison policies which were as old as the Republic, to accept some of the very evils which had led us to proclaim our independence. The great revolution which was sweeping across the world, the revolution of science and politics, of industry and society, proved stronger than the most deeply rooted convictions of our national heroes. The impulse to survive took command of our national life, and drove us to enter the world of empire and power, without the possibility

of turning back, without the hope that we might continue undisturbed as a hermit nation in a world of total war, total economics, and total revolution.

The first element in our diplomatic re-education was the fact that North America was settled by invasion from Europe.

Control of the Atlantic converted that ocean into a high-way over which the European nations transported their people, their goods, their soldiers, and their magistrates into the New Atlantis. This fact was obscured by the hundred and fifty years of warfare which determined, among other things, that North America should become predominantly English instead of French. The recurrent struggle for mastery in western Europe automatically involved the British colonies in the New World, even after the War of 'Independence,' until the final victory at Waterloo.

The effect of this victory, which sealed the world-power of the Anglo-Saxon peoples, was a wave of reaction against the world-order which had made that power possible at the cost of wars waged for contingent issues. The cult of Isolation began, therefore, with the consciousness that no real threat to American independence need be expected after the defeat of Napoleon. For the hundred years of unchallenged British sea-power, this belief in isolation was possible, because it was not challenged by reality. The American people became a satellite on British power as they were becoming parasites on British valor. So long as the Royal Navy ruled the waves, there could be no questioning of a political myth which seemed to be sanctified by Washington, Jefferson, and Monroe and to bear the hall-marks of Jackson and Lincoln as well. Even when, in 1898, we compromised isolation to the extent of conquering Cuba and the Philippines from Spain, it was in a mood of diplomatic somnambulism in which the British were our effective allies and we

served British interests by forestalling German ambitions in the Far East. Even during the Presidency of Theodore Roosevelt, when our diplomacy supported the British Empire in the Japanese-Russian War and the Moroccan Crisis, neither our public opinion nor our politicians realized the reality which Thomas Jefferson had foreseen, that in time of crisis we must 'marry ourselves to the British fleet and nation.'

THE REAL VICTORY OF THE FIRST WORLD WAR MISUNDERSTOOD

The First World War of 1914-18 did not altogether rouse us from our international coma. When Imperial Germany challenged the British Empire, we instinctively became an economic, social, and political ally of the Empire. When our industrial and financial support proved insufficient to assure British victory, we became an open belligerent and threw a powerful army into Europe to turn back the Germans. It was the political genius of Woodrow Wilson which bridged the gap between the theory of isolation and the fact of intervention by his dream of world-democracy. To fight to make the world safe for democracy was more understandable by our people than to fight to make the world safe for British sea-power or for the Anglo-American world-order which had spread from the basin of the North Atlantic Ocean.

So it was that our victory in the First World War was never understood by the mass of the American people, who did not appreciate why a world-order must be defended at the points where it is threatened. American troops in France and Italy, in North Russia and Siberia; American warships in the North Sea and the Mediterranean; American money

and equipment sprayed over the world: all these were natural concomitants of our effort to maintain a practical world-order which would include Germany as well as England. For the same reason, our early opposition to the Soviet Union was fundamentally due to the instinctive realization that the cult of Communism was disruptive of the world-order which our victory in 1918 had made possible. We had fought and won a war in which the stakes of victory were beyond our realization.

RESULTS OF DISILLUSIONMENT

It was then that the Wilsonian doctrines boomeranged. Many details of the settlement of 1919-20 fell far short of the ideal. Politics is the art of compromise and diplomacy is merely politics in the international sphere. We were disillusioned, frustrated, and confused by the apparently sordid result of what seemed to us to be unprecedented sacrifices. The American electorate withdrew its support from the Wilsonian program and ushered in a Republican administration in 1920 with the innocent purpose of going back to the pre-war situation, 'a return to normalcy.'

This involved dismantlement of the shadowy wartime socialism required by our military efforts and a repudiation of all international commitments. The industrial beneficiaries of this movement calculated that Europe was so exhausted by years of warfare that no future threat could materialize for a generation. Hence it would be possible for the American people to avoid responsibility and at the same time profit from the world-wide demand for capital, for food, for goods and services.

This calculation was exact. We declined to ratify the peace treaties, we kept out of the League of Nations, we

reasserted our isolation, and we lent money at a rate which almost made us the world's banker. The result was ten years of business prosperity, which seemed to sanctify this policy of withdrawal by promoting the general, material welfare of the American people. Isolation became the unassailable dogma of our diplomacy, but so long as we continued to lend money or make our wealth available to the world, no one seriously objected to a course of action which seemed to reflect successful, enlightened selfishness.

NO MORE ARMAMENT — NO MORE WAR

We also attempted to accompany our diplomatic withdrawal by insistence on disarmament. Because the taxpayers of the richest and least-taxed industrial nation objected to the high cost of military preparedness, our diplomats assumed that it would be easy to persuade less secure nations to follow our example. So, by a series of diplomatic conferences, we threw away our power to make our isolation a positive force in world affairs. At Washington, in 1921-22, we bargained away our sea-power. At London, in 1931, we bargained away much of British sea-power. Our politicians and bankers by tariffs and bond issues resolutely destroyed the only means by which our isolation could be possible, and did nothing to lessen the desperation of nations which must rely on military power for economic justice and national opportunity.

RULE BY MANY UNTIL THE MARKET COLLAPSED

It was during the administration of Herbert Hoover that our whole defense policy — the bulwark of our national liberty — began to crumble. The Stock-Market Panic of

1929 had as its most important effect the complete destruction of the system of foreign loans by which our bankers had rendered our naïve foreign policy acceptable to the rest of the world. The result was repudiation on a world-wide scale and a return to the policies of force which American loans had held in check for a decade. The enactment of our most extreme monument to economic nationalism — the Smoot-Hawley Protective Tariff — in 1930 had the further effect of making it virtually impossible for our foreign creditors to repay their debts in the United States or even to maintain their national economies. The further reduction of naval armaments, for reasons of parsimony, placed the final seal on our military incompetence to maintain the world-order from which we benefited. In 1931, the Japanese invasion of Manchuria destroyed the world-order in the Far East which our diplomats had created a decade earlier and our appeal for British support in this theater fell upon deaf ears in London. As Hoover was being thrust out of the White House at Washington and the Republican Party with him out of national predominance, Adolf Hitler was coming into power in Germany and Mussolini was already contemplating the first moves of the program which was to set fire to the Old World and to threaten the liberties of the New.

ONE WAR AFTER ANOTHER

The next eight years were an era devoted to wars and rumors of wars, each of which, by its violent effect upon American opinion, demonstrated the utter falsity of the theory of isolation as a defense for the liberty of the American people. During this period, Japan was almost ceaselessly involved in hostilities on the Chinese mainland. In 1934, Italy embarked on a war of conquest against Ethiopia. The

League of Nations collapsed in the face of this threat to collective security and the Great Powers of Europe, led by England, initialed the policy of appeasement of the aggressors and abandonment of the victims of aggression.

Two years later, while we were engaged in an exciting presidential campaign, came the Spanish Revolution, or rather the rebellion of General Franco against the legal government of the Spanish Republic, with the aid of organized filibusters from Italy and Germany. For nearly three years the Spanish War continued, and we attempted a new variety of legal isolation — the so-called Neutrality Act — which justified our refusal to permit the Spanish Government to defend itself with weapons purchased from a friendly country. This war ended with the victory of the rebels and the establishment of Germany and Italy as powers in Spain, threatening the sea communications of the Atlantic and Mediterranean on which our world-order depended. In this attitude of abstention, we again — as in Abyssinia — followed the lead of the British Government, unaware of the fact that Great Britain was dominated by a policy of obstinate refusal to face reality.

The result of this tragedy was the swift series of events leading up to the outbreak of war in September, 1939. In the spring of 1938, the German Government, which, under Hitler, had devoted the energies of a formidably efficient German nation to the manufacture of armaments and armies, seized Austria. The Rhineland and the Saar had already been occupied, but Austria had been a buffer-state between Italy and Germany until Mussolini's isolation in the Abyssinian War had forced Italy into the so-called Rome-Berlin Axis. This sealed the fate of Czecho-Slovakia, which, in September, 1938, was also forced under German control. The Munich Crisis of that year bought a little time for

France and England, but their attempts to rearm were limited by the will of their governments to pay the costs of rearmament. By the following spring, Hitler was ready to occupy the remains of Czecho-Slovakia and then to turn against Poland. France and Britain guaranteed the Poles against Germany, but failed to make arrangements with Russia, relying upon the incompatibility of the Communist and Nazi creeds. In August, 1939, Hitler and Stalin became allies and Poland was invaded on the morning of September 1, 1939. A general European war had broken out for the second time within a generation.

UNPREPAREDNESS AND ISOLATION

This event found Americans intellectually unprepared. Government attempts at rearmament had been curbed by Congress and public opinion had become resentful of Government expenditures. In July, 1939, an attempt was made to revise the Neutrality Act, part of which had lapsed, along lines which would permit us to sell munitions to France and England. At that time the leaders of Congress — inspired by the isolationists — declared that there was no danger of war and the national legislature adjourned in the face of President Roosevelt's pleas that it remain and do its duty. It was this act which first discredited the isolationist policy in the United States. Having staked itself on the theory that there would be no war, it was morally bankrupt when war broke out. Since then it has sought to capitalize American hatred of war, but it is crippled by its record of failure to foresee the crisis.

The first result was a special session of Congress at which the Neutrality Act was amended along the lines desired by the Administration. The second effect was to encourage

American business to look forward to a profitable war-trade with the Allies. Allied victory was generally assumed by public opinion and the American people settled into the rôle of interested spectators at a big human drama. There was, in fact, considerable petulant criticism at the slow pace of the war after the Germans and Russians had overrun Poland. When Russia attacked Finland there was livelier interest and considerable Finnish partisanship as the spectacle of David-and-Goliath intrigued the cartoon-mindedness of the average man. When Finland fell, after prolonged resistance, there was a general belief that it had been proved that a determined army could stand off the new technique of warfare which had crumbled Poland in three weeks.

This mood yielded to indignation and alarm as the Germans opened their 1940 offensive with swift occupation of Denmark and Norway. Then in May of 1940 came the Nazi rush through Holland and Belgium, the breach in the Maginot Line, the miraculous escape of the British Expeditionary Force from Dunkirk, the collapse of France, and the final surrender to Germany in June. For the first time Americans began to realize that their world-order and their world-assumptions and their national safety were involved in the battles across the Atlantic. The summer and autumn witnessed the failure of the first German attack on England, the disastrous Italian campaign against Greece, and the British victories over the Fascist armies in North Africa. As the struggle progressed, pretense of neutrality was abandoned and the country was committed to a policy based on the law of self-preservation. Aid to England became the dominant purpose of the American people to such a degree that even those who opposed helping England were compelled to state that their real motive was to assure the defense of the United States. Then came the swift Nazi

conquest of the Balkans and the thunderbolt invasion of Soviet Russia and the formation of a national policy of 'Anything to beat Hitler!'

Within twenty years of the inauguration of President Harding and the consecration of American diplomacy to the principle of isolation and 'normalcy,' the United States found itself in the position of a non-belligerent ally of the British Empire and the Soviet Union, spending huge sums for armaments to be used to support them in their war against the Nazis, and enacting legislation designed to allow the President to do whatever he chose with our armaments in order to assure the victory of the nations resisting the German drive for world-conquest.

A COSTLY DECADE

In other words, the policy of isolation was ended. One tenth of the money and effort involved in the desperate effort to buttress British power would have sufficed a few years earlier to ensure our security by international arrangements. The new tactical power of aircraft and the institution of 'total war' — that is to say, war by all the members of a nation against all the members of another nation — with the bombing of homes, civilians, unarmed vessels, etc., had put an end to the comfortable belief that America, by virtue of its geographical detachment, was immune from attack. The private-profit system, which failed to produce weapons as rapidly or of such good quality as the foreign belligerents, was also discredited by events. The total war, as expressed in air-power, rendered American diplomacy and business methods as passé as the trireme and the arquebus.

The oceans in which America was an island became what they had always been until they passed under the control

of a British sea-power which was friendly to ourselves: highways for invasion and conquest. So we found ourselves in the position of sharing all the risks and none of the responsibility in the world-order from which our statesmen had sought to withdraw in 1921. We found ourselves in the position of helping the British Empire and the Soviet Union fight a war which had become inevitable as a result of our refusal to take part in supporting the peace settlement of 1919. We found ourselves in the position of part of the potential spoils of victory for the Axis Powers, without having taken any practical or intelligent steps to forestall the creation of the Axis which threatened to dominate the Eastern Hemisphere. By attempting to avoid any of the duties and responsibilities of our power, we had risked our lives, our fortunes, and our sacred honor. By begrudging the cost in money, brains, and effort to prevent recurrence of world war, we stood to lose our national liberty and our domestic freedom. The only elements of modern defense which we possessed were those which had been most bitterly opposed in our domestic politics and were most clearly threatened with destruction should the party of the isolationists ever regain control of national policy. Fortunately for the American people, eight years of domestic reform had partially equipped them with the indispensable means of resisting a war which was part world conquest and part world revolution. The means by which the American people, through their Government, had sought to establish social and economic freedom at home were their first line of defense in maintaining their national liberty against threats from abroad.

CHAPTER II

TOTAL DEFENSE

ALMOST EVERY INDUSTRY IS NOW, IN A PROSPECTIVE 'COVENTRY'

THE twentieth century witnessed three parallel developments, bearing on the capacity of the American people to defend themselves. There was the growth of great cities and metropolitan areas as the focus of industrial production, distribution, and exchange. There was the perfection of the airplane, with its demonstrated ability to rain fire and high-explosive bombs on the intricate network of vulnerable human activities in those urban areas. And there was the series of inventions by which electric energy could be economically distributed over a wide area, thus releasing the cities from their dependence on coal and rail or water transport for industrial supplies.

It was, above all, the airplane which doomed the cities in Hitler's world. Under the consolidation of enterprise and the concentration of ownership which had created the typical American industry of the nineteen-twenties, a small number of large targets was offered to the far from imaginary raiders and saboteurs. One good smashing raid on the city of Detroit could paralyze the motor industry on which much American life depended. Raids on Birmingham, Alabama; Pittsburgh, Pennsylvania; and Gary, Indiana, could tie up our great steel industry. Rubber was concentrated at Ak-

ron. Cities like New York and Chicago were especially vulnerable to fire. The concentration of political administration at Washington offered a parallel to the dangerous concentration in our business life.

The only factor which could offset this trend was the development of abundant electric energy, generated by water-power, by which a process of industrial decentralization would be not only possible but economical. For the answer to the indiscriminate attack from the air was not so much in concentrated defense of a concentrated target as it was in the principle of dispersion — an 'open order' for industry, in which a very large number of small targets were offered to the raider. These were not only harder to hit, while a miss would not disorganize social existence in their vicinities, as would be the case with a bomb in a large industrial center, but they could not conceivably all be put out of action at the same time. Even in the event of invasion, the principle of dispersion insured that production could be maintained in the unoccupied regions. This was the method adopted by Germany in its great armament drive which began in 1933. This was the method adopted by Great Britain in its rearmament drive beginning in 1936. Only in France, where the resistance of the big business interests succeeded in blocking the efforts of the Popular Front Government to decentralize munitions productions, was this method ignored. By accident or design, the American people had devoted a large part of the nineteen-thirties to an effort to secure a similar decentralization.

THE FIGHT TO DECENTRALIZE: MONEY CONTROL

This first took the form of a violent political drive against concentrated financial power. The Government took the

dollar off the gold standard and devalued the currency early in 1933. Failure of the banking centers to lend money had led to the creation of the Reconstruction Finance Corporation, which assumed the functions formerly exerted by a few private banks in lower Manhattan, and financed railroads, banks, insurance companies, and industries on a continental scale. Parallel to this was the use of gold- and silver-purchase policies and the creation of a stabilization fund to manage the external part of monetary defense. More important was the abandonment of the effort to balance the budget and the proof that this violation of orthodox finance did not put the Government at the mercy of the bankers. The power of private finance over the use of the public credit was broken and we laid the foundations for financial decentralization.

CONTROL BY TRUSTS

Operating on the legal front, the people made a prolonged attempt to smash industrial monopolies and to restore the independence and prosperity of small business enterprises, whose 'inefficiency' was frequently the result of inability to obtain credit from banks which had an interest in their Big-Business competitors. The Department of Justice made a legal crusade of the enforcement of the anti-trust laws, and indictments ranged from the all-powerful oil companies and the Aluminum Company of America down to labor unions, milk combines, and organized medicine. None of this activity proved very effective. When the National Defense Advisory Commission was established in the summer of 1940 the bulk of the armaments contracts were awarded to the Big-Business enterprises, which were most vulnerable from the defense angle and least justified from the social and economic angle. Only in the realm of hydro-electric power did the Government and the people succeed in their objective.

This was effected by the development of new industrial areas in the United States, by the process of Government enterprise. One such area was created through the activities of the Tennessee Valley Authority, in the face of bitter and sustained opposition of the bulk of American business enterprise. A similar area came into existence as a result of Boulder Dam, whose hydro-electric energy made possible the development of a great airplane industry in the Los Angeles region. The great power developments at Bonneville and Grand Coulee created still another area and promised an almost limitless supply of airplane metal from the alumite and magnesite ore of eastern Washington. Only the refusal of the Senate of the United States to ratify the St. Lawrence Seaway Treaty with Canada, in 1934, had prevented the development of the greatest industrial area of all in northern New York, in time to be effective in the defense crisis of 1940.

After years of controversy and utility lobbying and propaganda, when the Defense Commission approached its task of improvising an American munitions economy, one of its first conclusions was that the T.V.A. was indispensable, and it asked more funds for speeding up work in the Tennessee Valley, even though that work had been one of the issues in the political campaign of 1940.

CONTROL OF COMMUNICATIONS

Comparable to power-decentralization was the development of alternative means of communication. The vast system of inland and intercoastal waterways and the tremendous expenditures on public roads 'decentralized' transport from dependence on the railroads. Thus another lesson of the war in Europe — the vulnerability of rail transportation to air attack — was applied in the United States well before that lesson was driven home by the events of the war.

HOUSING

Probably the most serious problem of American defense was the housing situation. Not only was the bulk of our people huddled into great cities and congested metropolitan areas, but the cities themselves were mainly composed of wooden shacks, frame houses, which would make a mammoth bonfire for any incendiary bombs which might be dropped on the community. In two important particulars, the Government anticipated that danger. Through a program for constructing 'satellite' towns — 'Greenbelt communities,' rural-industrial towns, subsistence homesteads — we began to decentralize the housing which could effectively be attacked from the air. At the same time the slum-clearance programs and the zoning regulations — with parks and other open spaces for health and recreation — not only wiped out housing which might have shared the fate of much of London's East End, but created fireproof buildings, insulated by space from any general conflagration which might develop. Owing to the successful opposition of a reactionary political coalition in Congress, this type of development was checked in the name of 'economy' before it had done more than demonstrate its potentialities, but it marked a new and realistic approach to a form of dispersion which was not only good sociology but also good national defense.

OPERATING THE COUNTRY AS A UNIT

The American people had to find an answer to the problem of their civilization, in which men depend on machines not only for their livelihood but for their protection. To build these machines demands a high degree of industrialization, but this industrialization automatically becomes the weak

spot — the point which must be protected. Economic decentralization can be achieved at the cost of increased dependence on communications. This means that, for purposes of defense, the entire country must be operated as a unit, and this in turn requires the concentration of authority. Concentration of authority thus becomes the weak spot, the point which must be defended against alien intrigue, against subversive propaganda, against domestic selfishness, against struggles for advantage and privilege and power. This means, finally, that far from 'adjourning politics' for the duration of the crisis, political activity has been stepped up to new highs of intensity and ingenuity. Thus the problem of national unity seemed almost insoluble at a time when unity was essential, and could be solved only by the program of 'total defense.'

'Total defense' is the phrase which describes the effort of the American people to achieve national unity for the purpose of national defense. Faced with a world war and a world revolution — a battle of ideas and a war on the nerves as well as the direct use and threat of force — they realize that their achievements of the last eight years have laid the foundation for a national-defense effort which will be adequate to ensure their survival as a free and self-governing nation.

MOBILISATION GÉNÉRALE

From the economic angle the problem is simply to find the means to mobilize the colossal resources of the North American continent. The national wealth was reckoned in 1936 at about three hundred billion dollars, of which over forty per cent was owned by the northeastern region. There are potential water-power resources amounting to nearly three

hundred billion horse-power-hours a year. There is half of all the coal, half of all the oil, and nine tenths of all the natural gas in the world under American control. Yet the mobilization of necessity increases the already disproportionate concentration of wealth in certain parts of the nation. As billions of dollars in contracts pour out of the Defense Commission and the Office of Production Management, they flow into the hands of industrial managers who have consistently opposed the social reorganization of the American people. This situation creates a dangerous tension and has convinced many sincere Americans that the Government has reversed its social policy.

The basic concept of total defense is the welfare of the average man and woman. Unless that average man has a stake in the country, a sense of opportunity, a belief that he can rely on substantial justice, it is argued that he will be unable or unwilling to make an effective fight for the society which has failed to satisfy his basic human needs. For this reason, it is clear that the American people has laid the foundations for total national defense in such enterprises as W.P.A., P.W.A., Social Security, the C.C.C., the A.A.A., labor laws which encouraged the rise of the first constructive leadership in American industry since the decade prior to the First World War, and other measures designed to decentralize industry and redistribute welfare and opportunity, and establish social justice. That this was the case was demonstrated by the passage of the first American peace-time conscription bill in the summer of 1940, with provision for the seizure of industry as well as man-power. It was noted at the time that support for this measure came from the poor and that its principal opponents were found among the overprivileged groups. Just so, as the tensions of the war developed, the principal 'appeasers' and advocates of 'defeatism' were

recruited from the ranks of Big Business and from the well-to-do professional classes, while the mass of the people showed far more faith in their country's destiny and far greater realization of the dangers presented by the totalitarian way of life.

It was the interplay of forces around the centralized political controls which the crisis had rendered necessary that colored the whole of American public opinion during the latter part of 1940 and 1941. Yet the mere existence of the struggle proved the reality of the social and economic 'dispersion' which provided the backbone of our national defense. For the first time on record, all the catchwords of patriotism and all the technique of flag-flapping were not the monopoly of the small, privileged industrial and financial groups which had hitherto profited from defense and war.

ACTIVE LEADERSHIP OF THE PRESIDENT

The leadership of President Roosevelt and of the so-called New Dealers was chiefly responsible for this novel situation in which the mass of the people had a voice as well as an interest in the defense of America. For years the psychological defense of the United States had rested almost entirely in the hands of the Chief Executive.

Repeatedly, Roosevelt called attention to the danger of war and pressed for rearmament in the face of congressional hostility to defense appropriations.¹ In a speech at Chicago in 1937, he warned of the possible necessity for a quarantine of aggressor nations. In order to participate in the sanctions against Italy, he acquiesced in the Neutrality Act of 1935 — the first important legislative restriction on his constitutional

¹ On the day when Hitler attacked the Low Countries, the House Subcommittee on Naval Appropriations proudly reported that it had effected an 'economy' of several million dollars in the budget of the United States Navy!

power over our foreign policy. With the outbreak of the Spanish War in 1936, he brought our Government into the so-called Non-Intervention Agreement by applying the arms embargo to the war in Spain. In speech after speech, to the limits of public tolerance and beyond, he tried to persuade the nation that it was faced with the threat of war. During the Czech crisis of 1938, prior to the Munich Agreement, he sought to promote a peaceful settlement of the dispute. In the following spring he urged Hitler to accept a peaceful economic world-settlement and to assure Germany's neighbors that they need not fear attack or invasion by the forces of the Third Reich. During the Polish crisis which led to war in that same autumn, he again publicly associated himself with the efforts to prevent hostilities.

After the outbreak of the war, he bent his efforts to a revision of the Neutrality Act which would permit the export of munitions to Great Britain and France. Following the collapse of France in the spring of 1940, he had introduced in Congress defense measures and set up the National Advisory Defense Council. During the winter of 1940-41, he had introduced measures which would enable him to throw the full weight of American industrial production behind the British war effort; and in his Third Inaugural Address he proclaimed the principles of the 'revolution of freedom' on which Americans must depend for a durable peace instead of another armistice after the war; through the Lend-Lease Law he committed American energies to the defeat of Hitler. Above all, he reorganized his Cabinet so as to include leading members of the opposition party and promoted the passage of the Conscription Act as a means to national unity.

BEING A GOOD NEIGHBOR

Fortunately for the United States, the American Government was not discouraged from taking those practical steps which would assure their diplomatic and naval defense. As early as 1933, the President extended and brought up to date the so-called 'Good-Neighbor' policy in the Western Hemisphere, a reversal of the dollar-diplomacy and interventionist moves which had poisoned our relations with the other American republics since the turn of the century. By such devices as the silver-purchase policy and by an attitude of forbearance toward the Mexican oil policy, as well as by the withdrawal of support from the Machado régime in Cuba, our Government showed its willingness to adopt a live-and-let-live attitude toward the other American peoples. At the Pan-American Conferences, this attitude was carried further into the sphere of non-intervention commitments, and as early as 1936, by a conference at Buenos Aires, we initiated a program for Hemisphere Solidarity as a basis for Hemisphere Defense. By the Declaration of Lima, in 1938, the work continued, and within three weeks of the outbreak of the war in 1939, a conference at Panama established a Pan-American neutrality zone and established permanent committees at Washington and Rio de Janeiro for promoting closer economic and financial relations between the Western Hemisphere countries.

Less criticism attended the cultivation of practical relationships with the British Empire countries and possessions in the Western Hemisphere. As early as 1938, the President's speech at Kingston, Ontario, made clear what every military strategist had long assumed: that the Monroe Doctrine applied with especial force to Canada and that the United States in self-defense would be bound to prevent a foreign invader from installing a hostile power along the 'long, un-

guarded frontier.' It is true that this rudimentary expression of national common sense was sharply criticized, but the establishment of a joint Canadian-American Defense Commission, following the outbreak of the European war, was accepted without much comment, despite the fact that the Dominion was an active belligerent.

SECURING PROTECTIVE NAVAL BASES

In the summer of 1940, when the United Kingdom was threatened with invasion by the German armies which had overrun France, the Government made a highly practical arrangement by which, in return for the transfer of fifty American destroyers to the Royal Navy, we received the right to establish air and naval bases in the western Atlantic islands, from Newfoundland and Bermuda right down to the West Indies, Jamaica, and Trinidad. This agreement relieved our naval strategists of the nightmare which had persisted since the American Revolution, that these islands might become bases from which to attack our commerce and invade our territories. There was, of course, violent objection to the destroyer-bases deal, but chiefly from the angle that it ought to have been submitted in advance to the Congress. Yet barely six months later, when the so-called Lend-Lease Bill — authorizing a similar range of actions for national defense — was submitted to the Congress, it was violently opposed by some of the same men who had previously approved the earlier agreement, but had argued that the Congress should have been permitted to pass upon the policy involved. Yet the practical effect of this program was to convert the United States into the economic and industrial center of the British Empire, 'the arsenal and larder of democracy': a policy as bold and as potentially advantageous as the Monroe Doctrine itself.

BIG NAVY

The force which implemented this far-sighted policy was the creation of an American Navy equipped to deal with the responsibilities of two-ocean defense. In 1933, under the National Industrial Recovery Act, relief funds were diverted by the Public Works Administration for the construction of new cruisers and aircraft-carriers and other auxiliary craft. Two years later, the Congress specifically forbade this use of funds appropriated for national recovery. In 1938, the President called for larger naval appropriations, but met with objections based on the belief that budgetary 'economy' was the essential condition of national safety.¹

¹ Following the First World War, the United States found itself on the way to possessing the most powerful navy in the world, with 536 fighting ships, of more than 2,100,000 tons, manned by 135,000 highly trained officers and men. This force was backed by a powerful shipbuilding capacity and a great reserve both in personnel and in merchant shipping. In the belief that the budgetary convenience of the United States was the measure of world peace, and that low taxes were the essence of wise domestic policy, our leaders then embarked upon a program of so-called disarmament, both by international agreement and by refusal to appropriate funds for naval construction.

After the Washington Naval Disarmament Conference of 1921-22, we got rid of 31 capital ships, including 7 new battleships and 4 new battle cruisers under construction. The total tonnage we scrapped was nearly 800,000, about equal to that scrapped by Great Britain and Japan combined. In 1930, we agreed to scrap 3 more capital ships plus 203 cruisers, destroyers, and submarines — all this on the eve of Hitlerism and the year before Japan struck in Manchuria. Moreover, during this period, of the 150 fighting ships the treaties allowed us to lay down between 1922 and 1933, only 14 were completed. By 1933, our Navy was weaker in combatant power than that of Japan or Great Britain, and we possessed a total of 360 war vessels of a bit over 1,100,000 tons.

During the following seven years, this trend was sharply reversed. Between 1933 and 1940, we laid down or contracted for 242 new warships and completed 124 of them. Naval personnel, which had sunk to 90,000 in 1933, not counting 16,000 Marines, had increased to 150,000 men in the Navy and over 27,000 in the Marine Corps. In the same period the number of naval planes was more than doubled. And late in 1940, following the treaty of September 27, 1940, by which Germany, Italy, and Japan bound them-

CENTRALIZED MANAGING OF DEFENSE

Possession of the naval force to maintain the vital freedom of the seas for the Americas was meaningless unless the industrial production of the American people could be used to effect the final result of the conflict. For this reason the President — with general public approval — set up the National Defense Advisory Commission. This was a group which represented the elements of industry, raw materials, labor, transportation, prices, consumers' goods. It was empowered to pass upon defense contracts and was ordered to expedite production. Owing to the stubborn refusal of Congress to recognize the true character of a munitions economy or the urgent need for economic rationalization, it was necessary to establish this commission on the basis of persuading by profits instead of ordering by political authority the required goods and services. A system which had failed in France and had to be abandoned in England

selfs to attack us if we interfered with any of the separate plans for conquest, we authorized the so-called 'Two-Ocean Navy' — a fleet almost double the size of the existing naval strength of the United States. In spite of almost criminal blindness on the part of the legislative branch of our Government, by the end of 1940 the United States Navy consisted of the following formidable force: 15 battleships built and 12 building; 18 heavy cruisers built and 4 building; 19 light cruisers built and 17 building; 6 aircraft carriers built and 5 building; 236 destroyers built and 61 building; 101 submarines built and 41 building — and all this in addition to 200 warships of about 1,325,000 tons authorized by Congress. The total Navy envisaged was one of over 730 vessels, with more than 3,500,000 tons displacement — a force nearly twice as great as the one which had been the largest in the world twenty years before. Without this force in practical existence in the early nineteen-forties, the American people would have found their national-defense problems almost insoluble in the face of the crisis which developed with the fall of France and the threat to Great Britain. With it, control of the seas was possible to the two Anglo-Saxon sea-powers, the British Navy holding the North Sea and the Mediterranean while the American Navy held the balance of naval strength against Japan in the Pacific Ocean. Thus some approximation of the world-order was maintained at a period when that order was under direct attack from nations which proposed to overthrow it and substitute their own control.

was attempted in the United States. The commission disposed of about fifteen billion dollars of appropriations and authorizations, but lagged behind seriously in the vital elements of airplane design and production.¹

Public dissatisfaction with a system which was conscripting men for the armies and attempting to conscript labor for private employers, by efforts to deny the right to strike and to destroy collective bargaining and wage-and-hours legislation, while it bribed corporate industry with increased profit margins, ingenious tax exemptions and low-interest capital loans, led to a reorganization late in 1940. At that time the Office of Production Management was set up under the joint control of William Knudsen, representing industrial management, and Sidney Hillman, representing industrial labor. The continued ineffectiveness, however, of our reliance upon the method of negotiation and private profiteering for the production of defense weapons, in the face of the crisis caused by the second German assault against England and the Nazi drive against Soviet Russia, made it clear that further reorganization would be required and that more drastic measures must be applied, if the American people were to accept the good faith of their Government in applying the principles of total defense to capital as well as labor, to corporations as well as to conscripts.

Subsequently the President, moving into the key of the industrial mobilization program, appointed Vice-President Henry A. Wallace as chairman of the Supply Priorities and Allocations Board, with Donald M. Nelson as executive director. The other members of this key organization are the Secretary of War; the Secretary of the Navy; William

¹ When it was supplanted by the Office of Production Management, the system of hiring wolves to guard the sheep led to scandalous shortages in steel, aluminum, and electric power — thanks to accepting the word of corporate stooges who staffed this defense agency as 'dollar-a-year men.'

S. Knudsen; Harry Hopkins, and Leon Henderson. Likewise the President made the Vice-President the head of the economic warfare details and of the export problems involved in national defense.

NEW DEAL AGENCIES' PART IN DEFENSE

The issue of total defense presents to the American people the possibility of speeding up the reconstruction of their country and at the same time ensuring themselves against the more dangerous aspects of both world war and world revolution. Against revolutionaries who carry arms, total defense opposes both weapons of defense and ideas of social reorganization which can achieve the results of revolution without its violence.

Roosevelt's idea of 'the revolution of freedom' rapidly took root. We have discovered that peace is indivisible, that war is indivisible. The conclusion is that freedom also is indivisible. When President Roosevelt's 1941 message to Congress espoused a program of world-wide freedom of speech, freedom of conscience, freedom from want, and freedom from fear, it simply gave voice to a conviction that had been growing in many minds: that the world could not exist half-slave and half-free.

Reinforcing this belief is the record of achievement under free institutions. Through the C.C.C. over two million young men have been trained in the essentials of military pioneering. Moreover, the system of C.C.C. camps conforms to the essential idea of 'dispersion.' They provide fifteen hundred training centers for mustering and drilling troops and avoid the dangers of large cantonments which had been employed in 1917-18. The technique for mobilizing, supplying, and utilizing a widely dispersed force has

been worked out in the corps, whose full military importance would be disclosed in event of threatened invasion. In much the same way, the W.P.A. and the Food Stamp Plan, between them, created the technique for maintaining and rationing another widely dispersed force of over two million workers. The Public Works Administration and the Reconstruction Finance Corporation also involved this vital principle of centralized planning and decentralized execution. The Conscription Act of 1940 embodied further evidence of the national will for total defense and ended, among other things, the social injustice by which economic necessity was forcing the poor into the army while the rich indulged the luxury of pacifist defeatism.

Even with all the delays, mistakes, and confusion seemingly inevitable in the shift from a peace economy to a defense economy, the record is impressive. The Public Works Administration constructed two aircraft carriers, four cruisers, four heavy destroyers, sixteen light destroyers, four submarines, and two gunboats, with relief funds. This was in addition to P.W.A. provision of over one hundred military aircraft, one hundred and thirty new planes for the Navy. The Works Progress Administration constructed one hundred and eighty-nine new landing-fields, improved or made additions to three hundred and sixty-one more such fields, in addition to runways, hangars and buildings, seaplane lamps, airway beacons and markers, etc. P.W.A. financed airport constructions and W.P.A. worked on more than fifty military airports, as well as naval airports. Both W.P.A. and P.W.A. also worked on naval bases, navy yards and docks, naval facilities, army posts, hospitals for both the Army and the Navy, machine shops, reconditioning of ordnance, motorization of army equipment, coast-guard cutters, patrol boats and facilities, National Guard armories, etc. All in all,

during the seven-year period from 1933 to 1940, over a billion dollars of emergency funds was spent for projects directly related to the national defense.

Of equal importance was the training program initiated by the National Youth Administration. In cooperation with the Civil Aeronautics Advisory Committee, primary training was given to thousands of military pilots. A nation-wide industrial training and apprenticeship program was initiated, to provide the skilled labor for the machines and factories required for the production of defense material. The point of all this activity was that it was a natural, unspectacular accompaniment of the program for economic relief and social reconstruction undertaken by the American people without direct reference to the needs of defense.

THE PLACE OF MAN-POWER IN A MACHINE WAR

The course of modern war places less emphasis on man-power than on machine-power, more emphasis on civilian morale than upon military discipline. Thus, for the first time in the history of America, the emphasis of defense has shifted from the armed forces to the people themselves. Upon their consciousness of social justice and economic opportunity, rather than upon the skill and numbers of their Army and Navy, depended the national safety. So it was that there was no attempt to put the whole nation in uniform. Prior to the first draft of man-power under the Conscription Act, the strength of the United States Army was: Regular Army, 14,000 officers, 300,000 men; National Guard, 15,000 officers, 225,000 men — a grand total of 554,000 officers and men. A million conscripts a year were added to this force by the compulsory-service laws. Emphasis was on equipment more than on man-power. The Army's

equipment, as of September 1, 1940, included 3000 75-mm. field guns, 1000 105-mm. howitzers, 450 3-inch anti-aircraft guns, 40,000 semi-automatic rifles, 3,000,000 other rifles, 75,000 machine guns, 250 anti-tank guns, 450 tanks, and 2500 planes. Under the rearmament program, by 1945 the Army expected to have a force of 200,000 officers and 4,000,000 men, greatly increased numbers of small arms and artillery, between 4000 and 6000 tanks, and 80,000 airplanes. This meant that total defense depended on satisfactory labor relations in defense industry — a consideration which few Congressmen dared to entertain, but one which explained the entire national labor policy.

WORLD-WIDE DEFENSE

Not only did the principle of total defense involve the type of social security and national unity required to supply this man-power and equipment on the basis of intensive cooperation, under freedom. It also involved something new in our foreign policy: the cultivation of cordial social relations with friendly nations, rather than the pursuit of a policy of mutual interest. For this reason, substantial friendship with the American republics was as necessary as loans, military missions, and Pan-American pacts. The Department of State established a Division of Cultural Relations with especial reference to South and Central America, and the Defense Commission organized a powerful propaganda unit under the direction of Nelson Rockefeller to implement this drive for social solidarity in the Western Hemisphere. Still more important was the establishment of sympathetic relations with Winston Churchill's national-unity government in Great Britain. The dispatch of Harry Hopkins as a special representative of America in England and the ap-

pointment of a sociologist and labor specialist as Ambassador to London, replacing a successful financial speculator, indicated our determination to understand and work with the forces of the 'revolution of freedom' as they were already expressing themselves in the British Empire.

As the true political forces revealed themselves in the successive struggles over repeal of the arms embargo, the conscription law and the aid-to-England proposals, it became clear that substantially the same groups which favored 'appeasement' of tyranny abroad also opposed reform at home. The lavish Government appropriations for munitions tended to divide this group and also to weaken the morale of those masses of industrial workers and farmers who feared reaction at home as much as they hated totalitarianism abroad.

Yet the end was clear. A new social order was being born under pressure and new institutions were being created in order that freedom might be strong enough to survive external pressures. In this sense the requirements of total defense were proving themselves indispensable to the completion of the program of domestic reform by which the people were remaking America. To the argument that democracy could not defend itself without destroying freedom there was but one answer: that freedom was so much stronger than any organization of tyranny or force that it imposed its own organization on society, and that the organization of freedom must release rather than cripple the energies of humanity, by curbing irresponsibility and curtailing privileges.

So, by irresistible force, a moral reconstruction began, as the true battle-ground of America was understood at last to be the battle-ground of the spirit. The issues were spiritual and moral, as was shown by the example of nations

which possessed courage and moral unity in the face of overwhelming force. The worst that could happen would be their destruction, not their defeat. As we came to realize this hard, exciting fact the ground began to shake under those who had previously relied on economic and political power to promote narrow or selfish interests. This shift to the imponderables of human freedom, more than all the dams and bridges, battleships and airplanes, housing and reforestation, was the real achievement of the American people in our time.

CHAPTER III

PURSUIT OF HAPPINESS

BUILDING UP EVERY MAN'S STAKE IN AMERICA

THE essence of total defense is not, as so many have imagined, the mobilization of all of our resources and their employment for military purposes. Our idea of total defense is that every American shall have a stake in his country and shall be willing to defend that stake with his life, not because of the physical wealth involved, but because of the moral content of our civilization — justice, freedom, and a sense of opportunity for the future. Only when men are persuaded that their death will serve the larger interests of mankind — which are almost exclusively moral interests — will they go forth to die in battle.

The magnificent physical achievements of our engineers, the wise social arrangements which we have initiated, the economic readjustments which have been sponsored by our politicians — all of these would be worthless without something to feed the fevered heart of man, something to answer his endless quest for peace in the heart of beauty, for dignity in achievement, for harmony with himself and his kind.

There is no one phrase for this impulse which, if unsatisfied, sets people to weeping at the official comedies or to conspiring against the best of all possible physical worlds. Without some avenue of escape into the realm of the spirit, the utmost magnificence becomes a padded cell and the

most elaborately devised social order is merely a larger prison. When we Americans speak of 'the pursuit of happiness,' it is this thing that we mean: the need of the human soul for food of its own, the sense of freedom, the search for God, the worship of beauty, the respect for life. It is a religious attitude and as such defies the tests of the sociologists, the statistics of the economists, the electoral majorities of the politicians, and the smudged headlines of the newspapers. For, without the pursuit of happiness, the State, society, life itself, fall prey to boredom, and the best-laid plans of mice and men are brought to nothing.

So it is that, during the last few years, the American people have turned to their Government for release from the dusty destiny of material reconstruction. Mocking laughter came from the ranks of the old and well-fed against what was unguardedly described as 'boondoggling' in relief. The Congress and the press have rung with denunciations of the use of public funds for enterprises above the level of the trousers-pocket, or, at most, the waistline, of the American people. Yet it is almost impossible to imagine what a cultural desert would have existed in the United States unless our officials had possessed the imagination and courage to provide food for the minds and souls of men.

EDUCATION

For the Works Progress Administration — the despised W.P.A. of the shovel-leaning cartoonists — supplied Americans with the means to enjoy and develop their cultural instincts. During a two-week period in January, 1940, the W.P.A. offered the American people the following cultural services:

Adult Education

Literacy and Naturalization (enrollees)	308,860
Vocational Training (enrollees)	195,460
Correspondence Work (enrollees)	47,812
Other Adult Education (enrollees)	543,306

Lectures and Forums (attendance) 161,710

Art Instruction (enrollees) 45,527

Music

Instruction (enrollees)	178,854
Performances (number)	2,576
(attendance)	1,101,293

Libraries Operated or Assisted (including Bookmobiles) 9,609

Book Renovation (Cumulative through Dec. 31, 1939,
volumes) 68,389,000

Braille (Cumulative through Dec. 31, 1939, pages) 3,909,000

Recreational Activities (week ending Feb. 18, 1939, hours) 15,680,000

Physical Recreation (number of participant
hours) 7,016,000

Social Recreation (games, dancing) 4,798,000

Cultural Recreation (arts, crafts, drama, music,
etc.) 13,337,000

ART

These figures cannot measure the meaning of a program which has brought to the American people a participation in the creation and enjoyment of beauty. The mere existence and staging of plays like 'The Living Newspaper,' 'Triple-A Plowed Under,' 'One Kind of a Nation' and 'Injunction Granted,' 'The Swing Mikado' and 'The Cradle Will Rock,' is evidence that here we have tapped a creative vein which lay outside the incentives and opportunities of commercialized art. Government films like 'The Plow That Broke the Plains,' 'The River,' and 'Power and the Land,' served as trail-breakers for the industry of visual reporting. The American people through their Government made aesthetic

history and added to human culture on a score of fronts during the past eight years. At a time when the rich ceased to support opera and philharmonic orchestras or to purchase paintings and sculpture, the Government moved into the breach.

The Public Works of Art Program, sponsored by the P.W.A., kept pace with the Fine Arts Program of the Treasury Department, beginning in 1934, until their consolidation under the Public Buildings Administration in 1939. A working principle of this program was adopted under which about one per cent of the total cost of a public building was devoted to artistic embellishment, generally in the form of frescoes, murals, or sculpture. These contracts are awarded on the basis of anonymous competitions. During the five-year period, one hundred and two such competitions were held, with nearly seventy-five hundred artists competing. Nearly a thousand artists received contracts, and as a result post-offices, courthouses, schools, and armories are embellished with works of art — often naïve and sometimes unsuccessful — which represent a conscious effort to contribute to our cultural life. Under the direction of Mr. Edward Bruce, this program made the Government the greatest patron of the fine arts in American history. For the first time since the ancient world, the aesthetic loyalties of the artist-group were diverted from private patrons to the community as a whole. As a result, the most sensitive and imaginative sections of society broke with the status quo and enlisted in the service of a movement designed to create a better society in the future. The poets, the writers, the musicians, the painters, the sculptors, and the dramatists found a new sense of freedom and opportunity and the world as a whole benefited.

In yet another vitally important field of aesthetics —

architecture — the Government became the dominant force. Where private business had curtailed expansion and wealthy people went slow in the matter of pleasure palaces, the Government planned and built magnificently. Under the aegis of first the Treasury and later the Public Works Administration, beautiful, original, and splendid buildings were erected in almost every county in the United States. Thus employment was given to over six thousand architects, including some of the most eminent, under a program designed to assure sound, appropriate, and beautiful structures.

Opening, almost at random, the great Government publications which describe some of these achievements, there is such a structure as the Dona Ana County Courthouse and jail in Las Cruces, New Mexico: 'a part two- and part three-story building, U-shaped in plan, with a large patio formed by the walls of the building on three sides and a stucco wall on the fourth . . . designed in the "Pueblo" type of architecture frequently used in the State . . . completed in February, 1938, at a construction cost of \$171,302 and a project cost of \$181,594.' Or there is the University Theater, State University of Iowa, at Iowa City, Iowa, or the Hospital Building, Florida State Prison, Raiford, Florida, or the Sewage Disposal Plant at St. Albans, Vermont, or the Municipal Light and Power Plant at Cushing, Oklahoma, or the airplane hangars at Treasure Island, San Francisco, California, or the Home for Small Animals and Great Apes in the Smithsonian Institution's National Geographical Park at Washington, D.C.

Whatever the building and wherever its location, an effort has been made to create a beautiful structure which is primarily adapted to its functions, but is in tune with the traditions and 'feel' of the region in which it is located.

So much of the glory of Greece and the grandeur of Rome was expressed in architecture that it is difficult to doubt that the creation of splendid and beautiful public buildings throughout the United States will not exert a profound effect upon the American people and upon their descendants.

In yet another field, music, it is impossible to judge the work which has been achieved. What happens to the human heart when the ear receives the sound of music is an emotional mystery. The work of a W.P.A. musician, 'Ballad for Americans,' became the high spot of a great national political gathering in 1940.

If, somewhere in America today, a youngster is finding a tune which may set the nation on its march to destiny, the odds are ten to one that this time it will be the work of one who owes his musical opportunity to a government that did not hold that beauty had no place in American public life.

PLAY

At the same time, over a thousand cities and towns and five hundred of our three thousand counties are engaged in 'planning' for playgrounds and parks. There are forty-five state planning boards, there are regional planning boards to study rivers, and every effort is made to consider landscaping and parking in the R.E.A. and other construction programs. In other words, public interest is being diverted to the idea that beauty is a legitimate concern of political administration. We are beginning to realize that ours is a blessed heritage — forests like green cathedrals, rivers like life and death, sunsets which unfold like symphonies, streams which are happy and honest, mountain ranges which surge like the sea, prairies which hold a mystery, and deserts which answer all questions — this is the glory and the full-

ness of America. Those who have looked upon them are never quite the same.

And we have arranged for our people to see these things. C.C.C. boys, hundreds of thousands of Army recruits and draftees, have been lifted out of the cities and away from the monotony of heart-break farms, to admire and to behold America. They will never again be quite the same when they return to the pool-rooms, drugstores, motion pictures, and courthouse squares. Their eyes will hold and hunger for some of the beauty of life. It may be the flight of a chickadee, or a thunder of great falls, or the blue-gray light before the dawn, or the rustle of a branch, or the winter stars wheeling in slow splendor across the sky. It may be laughter of friends or the memory of songs or a sudden recollection of the feel of an axe as it bites into a tree or the simple jokes of camp life. It may be the thought of tropic nights, the swirl of phosphorus in the water, the rustle of the trade-winds in the palms, or the brief thunderous sunrise of the Caribbees.

This, rather than the useful, necessary figures of food and income, housing and employment, is the reality behind the phrase 'the more abundant life.'

GOVERNMENT AND THE HUMAN SPIRIT

So a political achievement of the twentieth-century America was the turning of the American people to this limitless empire of the spirit and the brain of man. This was done in the face of derision, of bucolic prejudice, of economic hostility and social suspicion. It was done at a time when the chief and most conscious need of our times was for food and security. It was done in a world which was darkly arming itself for violence and in an age which had doomed

the finest efforts of its brightest men to devising the means to conquer others or to ward off defeat. It was a splendid thing for us to do, as the giant forces of our destiny sucked us toward the abyss — to raise and hold high the standard of beauty, culture, and happiness and thus to create in ourselves the beginning of a life which could not be conquered by bombs or bullets, by tanks, planes, or ships of war.

That America may need such things is the clear lesson of an age which has witnessed the collapse and discredit of the greatest material institutions.

In the period 1929-34, we saw the banking system on which we depended for our daily bread-and-butter and our plans for the future of the country go down in a welter of closed banks, suicides, and scandals. Beginning in 1931, we saw the whole post-war organization of collective security — the League of Nations, the Court of International Justice, and the Kellogg-Briand Treaty for renunciation of war — totter into the bloody abyss as China, Ethiopia, Spain, Czecho-Slovakia, and Austria fell prey to swift and ruthless aggression. In the World War which began in September, 1939, we saw the great French Army — 'the finest army in the world' — fall apart like a rotten melon as the Germans crashed the Maginot Line. We saw the traditional neutrality of the Scandinavian nations — the harmless, progressive, cooperative peoples who had minded their own business and seemed to have proved that war could be avoided by governments which abstained from power-politics — we saw them overrun as a prelude to the crushing of the Low Countries. We saw the magnificent British Navy and its traditional system of intelligence hard hit by the hammer-blows of the Germans and the whole world-order threatened with division or conquest by totalitarians. We saw the Vatican itself powerless to restrain Catholic Italy

from a jackal-leap into the war. We saw Germany, the traditional bulwark of Europe against Asia, let in the Russians to the north and the south. We saw treaties broken, undeclared wars, and civilians slaughtered by total war. We saw the theory of prosperity lose its magic and the practice of isolation fail to exercise the devils which beset the world.

In such times, men turn by instinct to the only institutions which can ride out such a storm. As their material bulwarks topple, they seek citizenship in the city built without hands. As when the Vandals and the Goths came down upon the Roman world, we seek survival by creating the one force which is stronger than steel and high explosives: the spirit and the soul of man.

For the citadel of freedom is defended only by the spirit which animates those who man its ramparts. As long ago as the Peloponnesian War, Nicias had observed that it is not walls but men who make a city. It was the mission of Christ to teach the ancient world that not men's bodies but their souls make all things possible. The defense of Finland and of Greece, the resistance of the British — all these reminded us that the defense of freedom depends less on the machinery by which men fight than on the spirit of the men who operate the machines.

As early as 1933, the President had told us that all we need fear was fear itself, and thus dissolved the numbing terror which had palsied our energies. The first of the allies whom we summoned to our assistance was courage. In the face of the cult of cowardice and the preachments of poltroonery, we discovered that courage could set us free from dangers which otherwise seemed insuperable. We began to remember that we were a virile, patient, and brave people, whose ancestors and traditions alike gave evidence of a

national will to face perils without flinching and to endure hardships without complaining.

Since courage without insight is not enough, the second defender of this inner citadel was intelligence. Never before in the history of the Republic had so many fine brains and keen intellects entered the service of the people. Derided as 'brain-trusters' and attacked as impractical theorists, subjected to all the ingenious obstruction and discredit of which the political mind is capable, they labored without thanks or glory to put their abilities at the service of their fellow-citizens.

With courage and insight, returned the other defenders of the citadel of freedom: loyalty and honor, decency and kindness, service and sacrifice. With these, everything is possible, including death but not dishonor, destruction but not defeat. Deep among the masses of hard-working, good-tempered, self-respecting men and women, they had always worked to temper misfortune and to relieve suffering. The majority of our people had never lost faith in themselves or in each other, and future historians will stand amazed at the restraint they showed in the face of the indifference, hostility, and enmity of the frightened few who made themselves merchants of hate in their nation's hour of peril.

Out of the deep springs of human decency, we slowly mustered the will and the knowledge to support 'the revolution of freedom' throughout the world, beginning with ourselves. We set as our goal the purpose of making the world itself, as a whole, a world in which men would enjoy freedom of speech, freedom of conscience, freedom from want, and freedom from fear. For this was the manifest destiny which fate or God had prepared for the American people — that their New Atlantis should witness a new birth of freedom not for ourselves alone but for all peoples.

CHAPTER IV

THE FIGHT FOR THE FUTURE

OUR PLANS AGAINST THE TOTATILARIAN

THE question which has faced this generation of Americans is whether we could plan for the future or could permit the future to be dictated to us by powers which we dared not control. Some of those powers were the forces of Nature in North America, and our record during the last eight years shows that we can either control them or control ourselves in relation to them.

Others are beyond our jurisdiction and demand an equal degree of foresight and self-discipline. For example, the activities into which the need for national defense has imposed upon us are the result of political, economic, and social maladjustments outside of our borders. In part by our own national policies — such as our tariffs, immigration laws, and attempt to maintain isolation — we have helped to create the situation under which our lives and wealth are conscripted for the defense of the Americas.

So long as we face the necessity for this total defense, our future is not free, but is subject to the actions of the Axis, almost as much as though we were a colonial dependency again and compelled to conform our national program to the will of Old-World Powers. Unless and until America can help create the basis for a peaceful world, our future will be mortgaged to either militarism or servitude.

For this and many other reasons it is not possible to draw up a blueprint for America's future. A plan laid down in 1900 would have failed to anticipate radio, airplanes, cheap automobiles, and mass-production. In any case, our future must depend to large degree on what happens to Herr Hitler and the Third Reich. The present war is the dominant factor in America's future.

This was clearly pointed out by Mr. W. L. Batt, deputy director of production in the Office of Production Management, in testimony before a congressional committee in June, 1941. Mr. Batt remarked that 'as a result of colossal world revolution now going on and of which we are a part, we face the perfectly plain, inescapable, and inevitable fact that when this war is over, no matter who wins, the world will not remember the old world of 1939. I need not elaborate on the differences if the Nazis and their satellites come out on top. But what if Britain wins; will it be the same old story of the World War all over again, with the same old British Empire under the same leadership restored to a position of world-dominance? We need only look to recent developments for a clear-enough indication that the answer to that question is "No."'

CHANGES IN AMERICA UNDER THE PRESENT CRISIS

In two important particulars, America has already changed irrevocably under the pressure of this threat to our freedom. The structure of our government has moved far in the direction of the Progressive State outlined in my book '1940.' There has been centralization of presidential authority, national planning on a wide scale, and Government control of both industry and labor — to mention only the most obvious facts. There has been also a sudden release of our

potential production. This has led to a revolution in business and in labor, as neither scarcity of demand nor scarcity of jobs any longer requires the practice of limited production and exclusive organization of employment. This short-circuits the entire range of economic and social motives in recent controversies, and since the change has come through the Government it foreshadows an era when Government will be the indispensable factor in American freedom.

The record of the first year of the national-defense program — a year which witnessed the maximum of confusion, delays, and mistakes — reveals how tremendous is the American potential. Between May, 1940, and May, 1941, our production of machine tools doubled, of aircraft quadrupled, of tanks sextupled; gunpowder increased by 1000 per cent, ammunition output went up 1200 per cent, machine guns 400 per cent. Nearly three billion dollars went into the construction or enlargement of the factories for defense — two thirds of it being Government funds, including a billion dollars for Government-owned factories. Jobs multiplied, both in defense-industry, in the armed services, and in the various training-courses and auxiliary civilian services, at a rate which revealed a series of labor shortages. Power-production proved inadequate and tremendous new power-projects became necessary. The entire American economy expanded enormously under the effect of two simple words: 'national defense.'

CARRYING ON DEFENSE AFTER THE WAR

The problem of the post-war future is to apply this same potential to the works of peace. The alternative is defeatism on a scale never before imagined in America. There is work for a million men for a generation in reforestation and soil-

conservation activities alone. For farming there is the unimagined market represented by the simple project to assure to every American an adequate and nourishing diet. In 1929 — the year which represents the summit of American material prosperity — there were the following deficits in the national production and distribution of the foods needed for a liberal diet as defined by the Department of Agriculture: 600,000,000 pounds of poultry, $2\frac{1}{4}$ billion pounds of meat, $2\frac{1}{2}$ billion pounds of sugar, 8 billion pounds of fresh vegetables, 20 billion pounds of fresh fruit, 15 billion pounds of eggs, 75 billion pounds of milk. To supply this diet to the American nation would increase farm income by two billion dollars and add two or three million jobs on the farm. It could be done, even within the economic limits of the price-system, if we had full national employment at an average weekly wage of fifty dollars.

There are other tremendous jobs to be done in America if the future is indeed to be ours. There are roads, dams and bridges, canals and other public works to be built. Simply to catch up with our housing problem will require the construction of a million new homes a year and the renovation of half a million old homes a year — for the next ten years. There are great industrial readjustments to be made. The growth of hydro-electric energy alone requires the relocation of many industries, and the new forms of transport in turn are widening the areas in which goods can be produced and distributed economically. Government itself, with its new powers and new responsibilities, will be drastically reorganized — locally as well as nationally — in the interest of economy and efficiency. The 'total economics' of the present age will compel drastic changes in methods of investment, financing, marketing, and international trade. Wider trading areas are being created not only in the Western

Hemisphere but throughout the world. There are great changes coming in the ways of our thought, our habits, and our institutions.

Perhaps the greatest of these changes will come — have already appeared — in our relations to the rest of the world. Without desiring it and almost without working for it, we are becoming the greatest of the world-powers. We already possess the largest Navy in the world. Our political horizons have already included the entire Hemisphere and have broadened to reach the victims of Old World aggression. Our war-industries increasingly support the fight for freedom in Europe, Africa, and Asia and our war-machine is a growing force in world-affairs. We have become a world-power and are beginning to accept the responsibilities of that power. Mr. B. M. Baruch, who should know, asserts that we are already in a position to outbuild and outsell the Third Reich in the markets of the world. The idea is growing that if we are to have a future in the world, we must be prepared to accept a different relationship to the nations of the world.

With the German bombs falling on England, we have become the industrial center of the British Empire. Will that fact lead us to 'Union Now,' or shall we drift into an economic hegemony or into an informal alliance with the Empire? All we can say now is that the drift of world-politics is towards a far closer affiliation between America and England — in which Great Britain is our buffer-state in Europe and we are the reserve of British power. Our relations with Latin America have already registered a sharp change. We have set aside political imperialism and have not asserted our primacy, yet we are undoubtedly the great and controlling factor in the affairs of this Hemisphere by reason of our military power and our industrial energy.

OUR ADVANCING INTERNATIONAL RESPONSIBILITY

In yet a third particular we have altered our attitude. We are now doing garrison-duty and naval patrol-duty over large regions of the earth. Our troops, ships, and planes ring the North Atlantic from Iceland to Trinidad, and dot the Pacific from the Aleutian Islands to Manila and Lamon. Our battle-fleet has maintained for ten years a mission which has kept the peace of the Pacific and our patrols are policing the sea-routes of the Atlantic. America's future may find our men and weapons on guard still farther from our borders — policing and perhaps administering some of the messier parts of the earth. In our quest for peace we may find that what we have is an American peace for the world — and one which must be maintained by us if it is to endure.

For our future must be ours to control, or else there will be no peace. What an American peace would mean to us and to the world can best be understood by reference to the objects of our national policy as it has slowly developed over the last eight years and more.

AMERICA OF THE FUTURE

In his last speech before re-election in November, 1940, President Roosevelt stated the vision of America's future as he understood that future. Not only because his re-election in some part gave national endorsement to his views, but also because those views reflect the desires of the great majority of decent Americans, his words should be read, not only here but in every foreign office in the world:

It is the destiny of this American generation to point the road to the future for all the world to see [he declared]. It is our prayer that all lovers of freedom may join us — the anguished

common people of this earth for whom we seek to light the path.

I see an America where factory workers are not discarded after they reach their prime, where there is no endless chain of poverty from generation to generation, where impoverished farmers and farm hands do not become homeless wanderers, where monopoly does not make youth a beggar for a job.

I see an America whose rivers and valleys — hills and streams and plains — the mountains over our land and nature's wealth deep under the earth — are protected as the rightful heritage of all the people.

I see an America where small business really has a chance to flourish and grow.

I see an America of great cultural and educational opportunity for all the people.

I see an America where the income from the land shall be implemented and protected by a government determined to guarantee to farmers a fair share in the national income.

Where the wheels of trade and private industry continue to turn to make the goods for America. Where no business man can be stifled by the harsh hand of monopoly, and where the legitimate profits of legitimate business are the fair reward of every business man — big and little — in the nation.

I see an America with peace in the ranks of labor.

Where the workers are really free and — through their great unions undominated by any outside force, or by any dictator within — can take their proper place at the council table with the owners and managers of business. Where the dignity and security of the working man and woman are guaranteed by their own strength and fortified by the safeguards of law.

Where those who have reached the evening of life shall live out their years in peace and security. Where pensions and insurance for those aged shall be given as a matter of right to those who through a long life of labor have served their families and their nation so well.

I see an America devoted to our freedoms — unified by tolerance — and by religious faith — a people consecrated to peace, a people confident in strength because their body and spirit are secure and unafraid.

There is much in this ideal which is naïve, some that is self-righteous, a bit that is too good to be altogether true of any large, dynamic nation — but on the whole it reflects the desire of Americans to set aside the old system of power-politics and to build a new form of international society based on freedom and security, on discipline and decency.

Here we have far to go. Our land contains many evils. We have made great mistakes and have done great wrongs. We have lacked discipline in our social relations and fortitude in our national thought. We have not yet answered the challenge of our own country which declares that only savages or supermen can dwell here with impunity. We fear life and we fear death and prefer the short-cut to the solid if laborious path to truth. We exalt the material above the moral and are in many ways a far from attractive, estimable race. Yet we have set our eyes upon the stars and have learned, out of our recent miscalculations, humility, without acquiring cynicism. We recognize that we are still on our way and so can join with other nations in a common search for peace and freedom.

The whole world is in revolution. America is in the world and shares the changes which have and must come. In remaking America, we are not only helping to remake the world, but are remaking the American people into a different sort of race, a more durable and more vital civilization.

For America is on the march. We are finding new frontiers and buttressing old freedoms. We face the future, without illusion, but also without fear, for the future will be as we

make it and we have found the will and the power to make that future ours. The American dream is over, but the American reality is greater than all the things men dreamed about it.

THE END





(Continued from front flap)

to the desert and power to homes and factories; how we are knitting the country together with good roads, flinging bridges across our great rivers, erecting schools and hospitals to improve our communities, and building better houses to improve the lot of the common man. He shows how — though not without much trial and error — we have laid the foundation for wider social justice, security, physical and mental health.

The America that faces war in 1941 is not the America of the great depression. It is a stronger nation, owing largely to the accomplishments and the far-reaching plans that are set forth in this book.

During the past ten years Jay Franklin, celebrated Washington columnist, has been closely associated with many of the men engaged in this program of remaking America. In formulating and carrying out some of their policies he has played a part; in most of them he has had a voice. He is a well-known Washington columnist and the author of eighteen books. 'The Future is Ours' (1939), 'a small hard-hitting book,' told the story of TVA, but one of the projects discussed and described in 'Remaking America.'

Illustrated

Before America could assert herself in the international scene, she had to put her own house in order.....



.....Between the years of 1932 and 1940 our power and agricultural facilities were rebuilt in streamlined form. This plan still goes on and on this plan will rest much of the effectiveness of our defense effort.